



Elite Ecology

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**Peggs Close,
Earl Shilton**



Preliminary Ecological Appraisal

May 2025



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0. Executive Summary

This report has been prepared at the request of Hinckley and Bosworth council. It relates to the proposed re-development works at Peggs Close, Earl Shilton, Leicester, Leicestershire, LE9 7BP (Central OS Grid Reference: SP 46873 97569). This survey effort involved both a desktop study and field survey being undertaken.

Under the current proposals, the site is to be cleared and up to seven dwellings are to be erected on site, with associated gardens and access. Overall, this will result in both the permanent and temporary loss and/or alteration of some of the habitats located on the proposed re-development site. Please refer to **Appendix A** for the site plans.

Leicestershire and Rutland Environmental Records Centre (LRERC) was commissioned to carry out an ecological data search of all protected species and sites recorded within a 2km radius of the site. No records lay on the proposed re-development site itself, although a number of records are present in close proximity. Please see **Section 3** for a review of the records revealed.

The preliminary ecological appraisal survey revealed multiple habitats on site. The phase 1 habitat map, habitat codes and target notes for the site are located within **Appendix D**. The following habitats were recorded on site (in habitat code order):

- **g4 – Modified Grassland**
- **u1 846 – Flower Bed**
- **u1b – Sealed Surface**
- **u1b5 – Buildings**
- **u1e 612 853 - Built Linear Feature**
- **u1f – Sparsely Vegetated Urban**

Designated Sites:

No designated sites that were revealed by the ecological data search provided by LRERC fell on the proposed re-development site itself, nor were any revealed immediately adjacent to the site. Therefore, the proposed re-development will have no impact upon any local designated sites as the works are due to remain within the site boundary.

Habitats:

Priority Habitats: No habitats of conservation concern were located on the site itself. Therefore, the proposed scheme of works will not impact upon any rare or valuable habitats.

Species:

Bats: Due to the potential roosting features identified on **B1**, **B2** and **B3**, a minimum of three bat emergence survey will be required on the buildings. These are required to be undertaken during the bat survey season of May to September (inclusive), although it is recommended that a minimum of two of these are undertaken in the optimum bat survey season of mid-May to August (inclusive). A total of ten surveyors will be required in total to cover all areas of the buildings and trees that are likely for bats to emerge or enter from.

Further compensation, mitigation, and enhancement measures will be outlined following the further survey effort.

Birds: Due to there being suitable bird breeding habitat within the site, all building works should be undertaken outside of the bird breeding season (March to August). If vegetation and/or structures are required to be removed during the bird breeding season, then a further inspection by a suitably qualified ecologist is required no more than twenty-four hours before these are to be removed. This is to ensure that no active nest site is illegally destroyed, due to the protection afforded to all active bird nests under the Wildlife and Countryside Act 1981. If an active nest is found by a site inspection, an exclusion zone around the nest will be necessary, where no vegetation removal can take place, to preserve this feature until the chicks have fledged the nest.

Hedgehogs (*Erinaceus europaeus*): If hedge or dense vegetation is cleared between the 1st of November and the 31st of March, then an inspection by a suitably qualified ecologist is required to ensure no hibernating hedgehogs are present on site. It is recommended that precautionary measures are incorporated if construction is undertaken at other times of the year. This will be to create provisions for hedgehogs to escape from all trenches dug into the ground, by creating slopes or providing ramps at the end of each working day. Additionally, any pipework left on site that is greater than 150mm in diameter will need to be planked off. Should this information be strictly adhered to, then the development works will not negatively impact on the local mammal populations.

Site Enhancements:

For the proposed site enhancements, please see **Section 5.4** of this report.

Biodiversity Net Gain:

Biodiversity net gain needs to be ensured within the scheme of work, and this will be devised utilising the latest DEFRA metric.

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1. Introduction

1.1 Report Rationale

This report has been prepared at the request of Hinckley and Bosworth council. It relates to the proposed re-development works at Peggs Close, Earl Shilton, Leicester, Leicestershire, LE9 7BP (Central OS Grid Reference: SP 46873 97569). This survey effort involved both a desktop study and field survey being undertaken.

The main purpose of this assessment was to identify the broad habitats (as stated in the UK Habitat Classification Version 2.0) and the flora species present within the survey area, with any further evidence of protected species usage and/or features of potential ecological interest also included.

The field survey was carried out on the 28th of April 2025 by **Mr. Matthew Cotterill**: PG Dip, Senior Ecologist. **Mr. Matthew Cotterill**: Bachelor of Science with Honours BSc (Hons) in Wildlife Countryside and Conservation Management from Staffordshire University, Post Graduate Diploma (PGDip) in Biological Recording from Manchester Metropolitan University, Ecologist, Natural England Bat Survey Licence Number: 2019-43981- CLS-CLS Level 1 Natural England GCN Survey Licence Number: 2016-20073-CL- CLS. Matthew has been in Ecological Consultancy for 9 years, starting at a small local consultancy. Matthew has experience of working with small and large consultancies, on a variety of small-scale and large-scale projects, including heavy involvement with High Speed Rail 2 (HS2). Matthew is a versatile ecologist that specialises in ornithology.

1.2 Site Description and Works

The site is situated in a semi-rural setting in the market town of Earl Shilton located approximately 5.0km from Hinckley, Leicestershire.

The site measures approximately 0.46ha, and contains a number of habitats. These include buildings, built linear features, flower bed, introduced shrub, modified grass, sealed surface, sparsely vegetated urban land, and scattered trees. The habitats on site could have the potential to support a number of protected species. The photographs of the site are found within **Appendix E**.

Within the wider landscape further habitats are present. These come in the form of amenity grass, arable land, hard standing ground, hedgerows, improved grassland, pastureland, residential dwellings (and their associated gardens/yards), scattered trees, standing water, and woodland. This shows that the habitats in the area surrounding the site have the potential to support protected species.

Under the current proposals, the existing buildings are to be demolished, and the site will be redeveloped through the construction of eighteen new residential dwellings with associated soft landscaping including new gardens and trees. Overall, this will result in both the permanent and temporary loss and/or alteration of some of the habitats located on the proposed re-development site. Please refer to **Appendix A** for the site plans.

Figure 1: An aerial map showing the boundary of the site at Peggs Close, Earl Shilton (as shown by the red outline).



Figure 2: An aerial map showing the boundary of the site at Peggs Close, Earl Shilton (as shown by the yellow star) in relation to some of the local landscape.

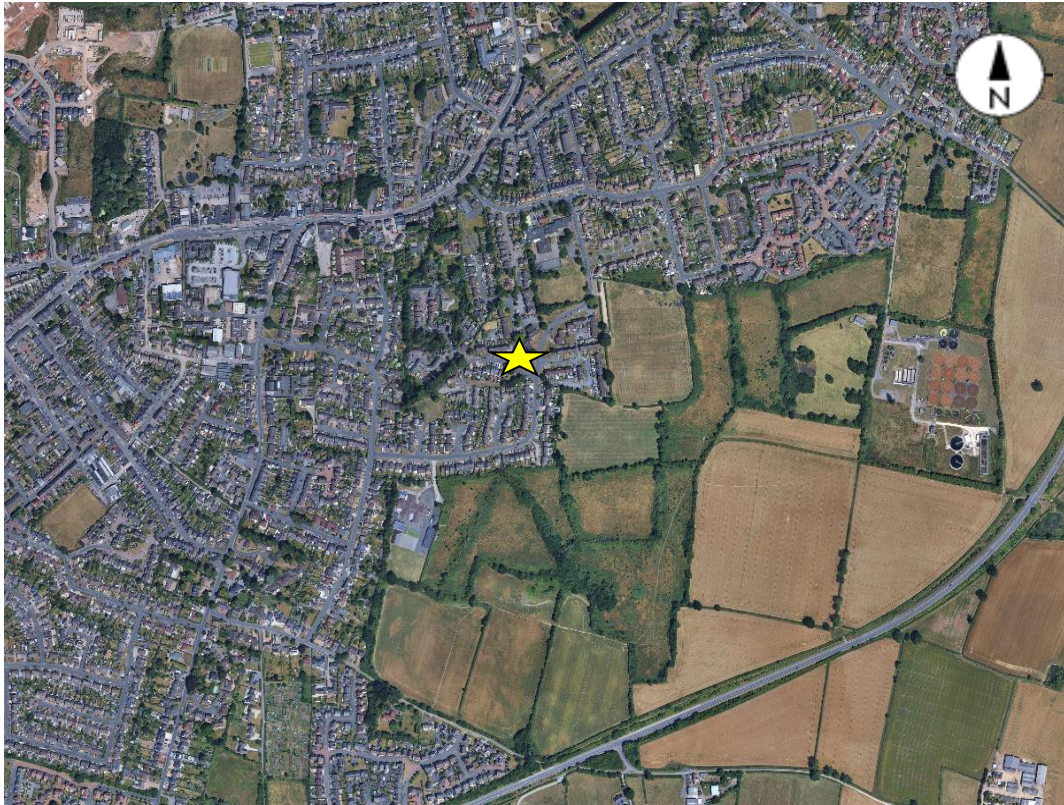


Figure 3: An OS map obtained from Bing showing the location of Peggs Close, Earl Shilton (as shown by the yellow star).



2. Survey Methodology

2.1 Desktop Survey

A variety of resources were independently consulted to assess the known local records within the nearby area and the importance of the site within the local landscape from an ecological perspective. The resources used were the Local Records Centre, www.naturalengland.org.uk, www.ordnancesurvey.co.uk, Google Maps, Google Earth, and Bing Maps. A search of other relevant nature conservation information was made through the use of the Multi-Agency Geographic Information for the Countryside (MAGIC) database.

The local records centre was contacted to provide data on all protected species and sites within 2km of the proposed development site. Leicestershire & Rutland environmental records centre (LRERC) was the relevant local record centre for this project.

2.2 Field Survey

A Preliminary Ecological Appraisal (previously referred to as an Extended Phase 1 Habitat Survey) was carried out using the method outlined in The UK Habitat Classification Version 2.0. This method aims to map and describe the broad habitat types and notable features present on the surveyed site.

The classification of the habitats themselves was done using the definitions outlined in UK Habitat Classification (UKHab) in *The UK Habitat Classification Version 2.0 (2023)*.

As part of the field survey, the floral species will be identified and noted down. This will consider the dominant, abundant, frequent, occasional, and rare (DAFOR) species within each habitat on the survey site. The impacts of the proposed development scheme will be assessed by this report.

Each habitat will be assessed for the presence and/or the potential presence of protected species. The impacts of the proposed scheme of works on all potential protected species on site will be assessed. From this, either remedial action or recommended phase 2 presence/absence surveys will be devised.

Habitat Surveys can be carried out at any time of the year, with the optimal time period falling between the months of April through until September. This survey was carried out in April 2025, which is inside the optimal time period for flora surveys. Elite Ecology feels confident that this report reflects an accurate representation of the site's suitability for protected species to be present.

All sites surveyed by Elite Ecology will be run against the relevant Local Wildlife Site Criteria to assess whether or not they meet the required standards.

3. Desktop Survey Results

3.1 Statutory Sites

The ecological data received from LRERC revealed no statutory protected sites (e.g., LNR, SSSI, SPA, SAC, or Ramsar) within the 2km radius of the site. No additional sites were revealed using the Multi-Agency Geographic Information for the Countryside information (MAGIC) database.

3.2 Non-statutory Sites

The ecological data received from LRERC revealed twenty-four non-statutory protected sites within 2km of the site. These were in the form of Local Wildlife Sites (LWS), and are as follows:

Site Name	Designation	Approx. Distance (m)	Heading
Barwell, Ash trees east of The Common	LWS (Candidate)	2,157	SW
Barwell, grassland and hedgerows east of The Common	LWS (Candidate)	2,061	SW
Barwell, hedgerow	LWS (Potential)	1,833	SW
Barwell, New Barn Farm hedge	LWS (Potential)	2,030	NW
Earl Shilton meadows, stream and hedges	LWS (Candidate)	637	S
Earl Shilton, mature oak near sewage works	LWS (Potential)	913	E
Earl Shilton, Wentworth Avenue Oak	LWS (Candidate)	1,663	SW
Elmesthorpe Hedgerows	LWS (Potential)	2,706	SW
Elmesthorpe Station Rd Ash	LWS (Candidate)	1,449	S
Elmesthorpe, Station Road Horse Chestnut	LWS (Potential)	1,317	S
Hay Meadow	LWS (Notified)	1,508	S
Home Farm Grassland	LWS (Potential)	1,842	S
Normanton Wood Hedgerow	LWS (Potential)	1,320	E
Peckleton, hedgerows	LWS (Potential)	1,670	N
Ragged Robin Marsh	LWS (Notified)	1,586	S
Recreation Ground Meadow and Pond	LWS (Potential)	1,520	S
Roadside Standards	LWS (Potential)	1,480	SW
Stanton Road Verge 2	LWS (Potential)	2,005	S
Station Road Ash and Horse Chestnut	LWS (Potential)	1,329	S
Streamside Willow Pollards	LWS (Potential)	2,033	SW
Thurlaston Brook hedgerow	LWS (Potential)	1,183	NW
Thurlaston Brook, Earl Shilton	LWS (Candidate)	1,265	NE
Thurlaston Lane Verge & Hedgerow	LWS (Potential)	2,122	E
Trackside Meadow	LWS (Candidate)	1,852	S

3.3 Woodland Sites

The information provided by LRERC revealed no Ancient and Semi-natural Woodland (ASNW) sites within the 2km search radius.

3.4 **Regionally Important Geological Sites (RIGS)**

The information provided by LRERC revealed no RIGS within the 2km search radius.

3.5 **Species Records**

3.5.1 **Amphibians**

Within the ecological data search provided by LRERC, five amphibian species were revealed within 2km of the survey site. These were common frog (*Rana temporaria*), common toad (*Bufo bufo*), great crested newt (*Triturus cristatus*), palmate newt (*Lissotriton helveticus*), and smooth newt (*Lissotriton vulgaris*). The closest record to the site was of smooth newt, recorded approximately 100m to the south of the site centroid.

There was a total of six European Protected Species Licence Returns for great crested newts within 2km of the site, the closest of which was located approximately 433m from the site.

3.5.2 **Birds**

Within the ecological data set received by LRERC, forty-six bird species were revealed. The closest record to the site was of swift (*Apus apus*), located approximately 62m to the south-west of the site centroid. A table with the collated bird species recorded can be found within **Appendix B**.

3.5.3 **Crustaceans**

Within the ecological data search provided by LRERC, one crustacean species was identified within 2km of the survey site. This was signal crayfish (*Pacifastacus leniusculus*), located approximately 451m to the north-east of the site centroid.

3.5.4 **Fish**

Within the ecological data search provided by LRERC, no records relating to fish species were revealed within 2km of the site.

3.5.5 **Flora**

Within the ecological data search provided by LRERC, forty-nine floral species were revealed, of which sixteen are invasive. The closest occurrence was of wall cotoneaster (*Cotoneaster horizontalis*), recorded approximately 218m to the north-west of the site centroid. A table with the collated flora species recorded can be found within **Appendix B**.

3.5.6 **Fungi**

Within the ecological data search provided by LRERC, no records relating to fungi were revealed within 2km of the site.

3.5.7 Invertebrates

Within the ecological data search provided by LRERC, eighteen insects (moth, beetle, butterfly) records were identified within a 2km radius of the site. The closest occurrence to site consists of several records, these were of brindled beauty (*Lycia hirtaria*), buff ermine (*Spilosoma lutea*), knot grass (*Acronicta rumicis*), powdered quaker (*Orthosia gracilis*), and white ermine (*Spilosoma lubricipeda*), all recorded approximately 743m to the north-east of the site centroid. A table with the collated flora species recorded can be found within **Appendix B**.

3.5.8 Mammals

Bats

Within the ecological data search provided by LRERC, eight known species of bat were revealed within the 2km search radius.

The UKBAP species recorded in the search were brown long-eared (*Plecotus auritus*), noctule (*Nyctalus noctula*), and soprano pipistrelle (*Pipistrellus pygmaeus*) bats. The non-BAP species recorded in the search were common pipistrelle (*Pipistrellus pipistrellus*), Daubenton's (*Myotis daubentonni*), Leisler's (*Nyctalus leisleri*), nathusius' pipistrelle (*Pipistrellus nathusii*), and serotine (*Eptesicus serotinus*) bats.

In addition to this, some records of unidentified bat (*Chiroptera* indet.), long-eared bat (*Plecotus* sp.), unidentified myotis (*Myotis* sp.), unidentified nyctalus (*Nyctalus* sp.), and unidentified pipistrelle (*Pipistrellus* sp.) specimens were revealed.

The closest records to the survey site were of common pipistrelle bat and pipistrelle bat species (*Pipistrellus* sp.), both found approximately 72m to the south of the site centroid.

There were no European Protected Species licenced for bats granted within 2km of the site.

Other Mammals

The ecological data search provided by LRERC revealed seven other mammal species within the 2km searches radius. These were American mink (*Neovison vison*), brown hare (*Lepus europaeus*), Eurasian badger (*Meles meles*), European hedgehog (*Erinaceus europaeus*), muntjac (*Muntiacus reevesi*), otter (*Lutra lutra*), and water vole (*Arvicola amphibius*). The closest occurrences to the site were of badger (*Meles meles*) and water vole (*Arvicola amphibius*), both recorded approximately 451m to the north-east of the site centroid.

3.5.9 Molluscs

Within the ecological data search provided by LRERC, no mollusc records were identified within 2km of the site.

3.5.10 Reptiles

Within the ecological data search provided by LRERC, one reptile species was identified within 2km of the survey site. This was of grass snake (*Natrix helvetica*). The closest occurrence to the site was recorded approximately 223m to the north-west of the site centroid.

4. Field Survey

4.1 Habitats

The preliminary ecological appraisal survey revealed multiple habitats on site. The phase 1 habitat map, habitat codes and target notes for the site are located within **Appendix D**. The following habitats were recorded on site and in the surrounding area (in habitat code order):

On Site:

4.1.1 g4 – Modified Grassland

UKHAB Secondary Code(s)	Definition
32	Scattered trees
201	Young trees

Several patches of modified grassland are present on the south, east, west, and north-east of the site. This habitat includes dominant ground ivy (*Glechoma hederacea*), and also some occasional species such as common yarrow (*Achillea millefolium*), daisy (*Bellis perennis*), and dandelion (*Taraxacum officinale*). This habitat also supports a range of rarely occurring species including coltsfoot (*Tussilago farfara*), cow parsley (*Anthriscus sylvestris*), creeping buttercup (*Ranunculus repens*), herb Robert (*Geranium robertianum*), ivy-leaved speedwell (*Veronica hederifolia*), large-leaved avens (*Geum macrophyllum*), mugwort (*Artemisia vulgaris*), nettle (*Urtica dioica*), mullein (*Verbascum thapsus*), purple dead nettle (*Lamium purpureum*), and ribwort plantain (*Plantago lanceolata*). This grassland is managed by mowing and the sward height is short. As such, this habitat has the potential to support several species in foraging and commuting.

Several trees are present throughout the grassland habitat. These are abundantly occurring silver birch (*Betula pendula*), frequent occurrences of hornbeam (*Carpinus betulus*), lime (*Tilia x europaea*), and whitebeam (*Sorbus aria*), and occasional occurrences of ash (*Fraxinus excelsior*) and silver maple (*Acer saccharinum*). This habitat has the potential to support various protected species in foraging and commuting, and as refugia. In addition, several of the trees on site have potential features to support roosting bats that were identified as part of the survey.

Figure 4: An aerial map of the site (red line boundary) with the locations of the trees **T1-T12** on site (green dots).

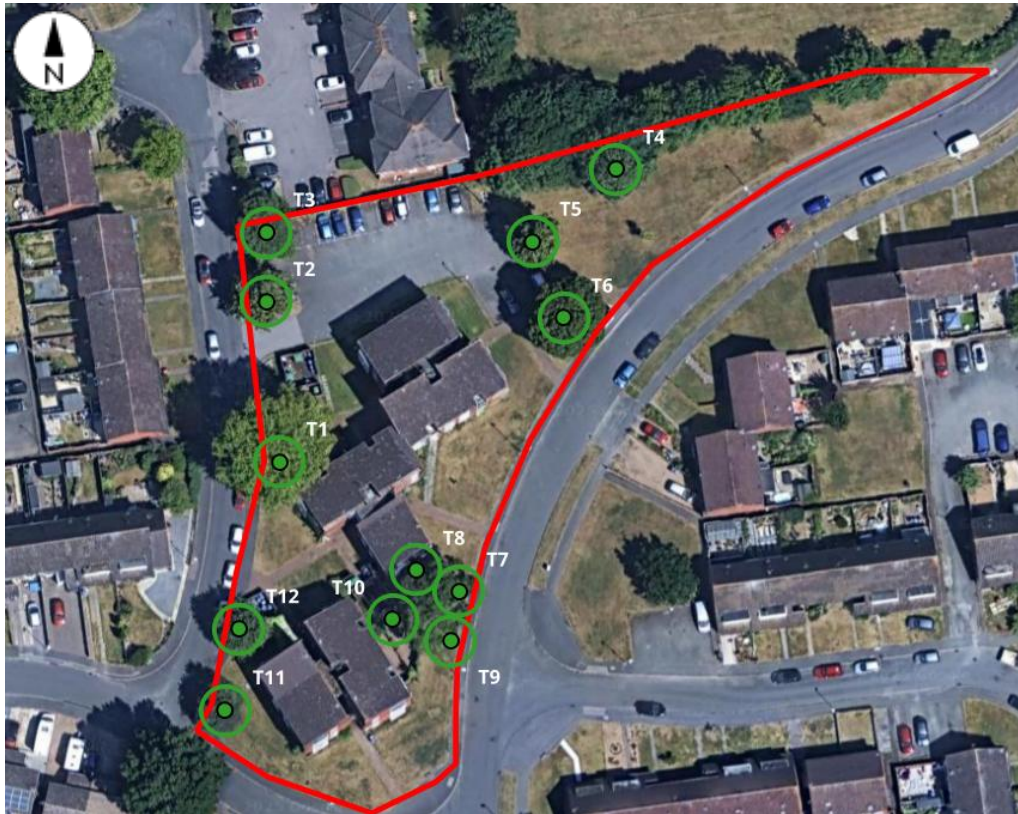


Table 1: A list of the trees on site, as well as their relevant potential roosting features (PRFs).

Tree Number	Common Name	Latin Name	PRFs	Justification	Retained (Yes/No)
T1	Silver maple	<i>Acer saccharinum</i>	None	N/A	Yes
T2	Lime	<i>Tilia x europaea</i>	PRF-I	Fluting ivy	Yes
T3	Hornbeam	<i>Carpinus betulus</i>	None	N/A	Yes
T4	Ash	<i>Fraxinus excelsior</i>	PRF-I	Dense ivy	Yes
T5	Lime	<i>Tilia x europaea</i>	None	N/A	No
T6	Hornbeam	<i>Carpinus betulus</i>	None	N/A	Yes
T7	Silver birch	<i>Betula pendula</i>	PRF-I	Fluting ivy	Yes
T8	Silver birch	<i>Betula pendula</i>	None	N/A	Yes
T9	Silver birch	<i>Betula pendula</i>	None	N/A	Yes
T10	Silver birch	<i>Betula pendula</i>	None	N/A	Yes
T11	Whitebeam	<i>Sorbus aria</i>	PRF-I	Fluting ivy	Yes
T12	Whitebeam	<i>Sorbus aria</i>	PRF-I	Fluting ivy	Yes

There are several young trees at the north-east of the site. This habitat consists of dominant occurrences of rowan (*Sorbus aucuparia*), and frequent occurrences of ash (*Fraxinus excelsior*) and hornbeam (*Carpinus betulus*). This habitat has the potential to support several species in foraging and commuting.

4.1.2 u1 846 – Flower Bed

UKHAB Secondary Code(s)	Definition
846	Flower Bed
847	Introduced Shrub

Multiple areas of planted flower beds are distributed throughout the site. Within this habitat are occasional common forget-me-not (*Myosotis arvensis*), common poppy (*Papaver rhoeas*), grape hyacinths (*Muscari neglectum*), sycamore (*Acer pseudoplatanus*), and valerian (*Valeriana officinalis*). Also, the patches contain some rare species such as common columbine (*Aquilegia vulgaris*), daffodil (*Narcissus psuedonarcissus*), and Spanish bluebell (*Hyacinthoides hispanica*).

Several patches of introduced shrub are present on the south and west of the site. The south-eastern part of the site is composed of trees. This patch contains one medium silver birch and three small silver birch, which all covered by ivy-leaved speedwell (*Veronica hederifolia*). The patches also include occasional species such as common juniper (*Juniperus communis*), dandelion (*Taraxacum officinale*), ground ivy (*Glechoma hederacea*), and holly (*Ilex aquifolium*). Also, the patches contain a range of rare species, including bramble (*Rubus fruticosus* agg.), buddleia (*Buddleja davidii*), cleavers (*Galium aparine*), hebe (*Veronica* sect. *Hebe* sp.), Japanese pine (*Pinus thunbergii*), lemon thyme (*Thymus citriodorus*), nipplewort (*Lapsana communis*), rose (*Rosa* sp.), small-leaved cotoneaster (*Cotoneaster horizontalis*), square-stalked willowherb (*Epilobium tetragonum*), sycamore (*Acer pseudoplatanus*), teasel (*Dipsacus fullonum*), and willow-leaved cotoneaster (*Cotoneaster salicifolius*). This habitat has the potential to support some species in foraging and commuting, and as refugia.

4.1.3 u1b – Developed Land; Sealed Surface

Some small patches of sealed surface are present at the site. These habitats contain some rare species such as, common ragwort (*Jacobaea vulgaris*), groundsel (*Senecio vulgaris*), and petty spurge (*Euphorbia peplus*). This habitat is of no ecological significance.

4.1.4 u1b5 – Buildings

Three buildings are present on the site, all of which are residential flats identified as **B1**, **B2**, and **B3**. These structures are situated on the northern and southern sides of the site and form part of its built environment.

Figure 5: An aerial map of the site at Peggs Close, Earl Shilton, with the locations of the three buildings (**B1**, **B2** and **B3**) shown (red outline).



B1External Inspection

B1 is a residential flat situated at the northern boundary of the site. The structure is a combination of concrete and tile materials. The roof is predominantly sloped in style and constructed of concrete tiles, ridge tiles, and pan tiles. Several vents are present on the roof surface and along the ridge and also some roof ridge vents are located on roof. A missing ridge tile is noted on the western elevation, and a gap is present beneath the edge tiles on the southern elevation. Lifted flashing was observed on both the southern and northern sides, and a broken hanging tile was identified on the northern elevation. These features may act as Potential Roosting Features (PRFs) for bats, offering possible access points. The external walls are of cavity construction and primarily comprise brick and timber, with upper portions clad in hanging clay tiles. Dense ivy (*Hedera helix*) is present on the eastern elevation, potentially obscuring small crevices that could serve as PRFs for bats. The broken tile on the northern wall may also provide PRFs. The windows are uPVC-framed and found on all elevations, some with wooden panels beneath. Doors are also uPVC. No significant gaps or damage were noted around windows or doors that would provide PRFs for bats. Other roofing features include artificial lighting, a canopy, drainpipes, fasciae, flashing, guttering, and soffits. While generally intact, lifted flashing on separate elevations may offer additional minor PRFs. No physical evidence of externally roosting bats or nesting birds was observed during the inspection of **B1**.

Internal Inspection

The ceiling of **B1** is constructed from a breathable membrane and supported by timber beams. The internal walls are made of breeze blocks and some sections of cement blocks. The roof included several pipes as part of its structure, likely used for kitchen ventilation and smoke extraction, as well as a kitchen hood outlet. Some asbestos material was also present in the roof. Inside, spiderwebs were observed, indicating a lack of flying species. Natural light was able to permeate the interior of the building, and some additional piping was noted along the internal walls. Additionally, some evidence of mice was discovered in the form of droppings. There was no physical evidence of internally nesting birds or roosting bats.

B2External Inspection

B2 is a residential flat situated at the centre boundary of the site. The structure is a combination of concrete and tile materials. The roof is predominantly mono-pitch in style and constructed of concrete tiles, ridge tiles, and pan tiles. A loose ridge tile was observed on the roof, which may act as a potential roosting feature for bats, depending on internal access and shelter conditions. Several vents were noted on both sides of the external walls. While generally well-sealed, these vents could provide limited PRF potential if any internal voids are accessible. The windows are uPVC-framed and are present on all elevations of the building, with some featuring wooden panels beneath. The doors are also uPVC. No obvious gaps or features associated with bat roosting were identified around windows or doors. Other roofing features include artificial lighting, a canopy, drainpipes, fasciae, flashing, guttering, and soffits. No physical evidence of externally nesting birds or roosting bats was identified on **B2** during the inspection.

Internal Inspection

The ceiling of **B2** is constructed from a breathable membrane and supported by timber beams. The internal walls are made of breeze blocks and in some sections, cement blocks. The roof included several pipes as part of its structure, likely used for kitchen ventilation and smoke extraction, as well as a kitchen hood outlet. Some asbestos material was also present in the roof. Inside, spiderwebs were observed, indicating a lack of flying species. Natural light was able to permeate the interior of the building, and some additional piping was noted along the internal walls. There was no physical evidence of internally nesting birds or roosting bats.

B3External Inspection

B3 is a residential flat located at the south of the site. The roof is sloped in style and constructed of concrete tiles, ridge tiles, and pan tiles. Several vents are present on the northern and western sections of the roof. These features may offer potential roosting features. Vents are also present on the walls, particularly in the northern and western elevations. While these are generally intact, they may offer low suitability PRFs if internal access is possible. Some loose wooden panels were observed on the southern side of the building, which may also provide minor crevices suitable for occasional use by individual bats. Windows are uPVC-framed and present on all elevations, with wooden panels beneath some. Doors are also constructed from uPVC. No obvious gaps or damage were noted that would offer roosting potential. Artificial lighting is installed on both the northern and southern sides of the building, which may reduce the suitability of any nearby features for roosting bats due to light disturbance. No physical evidence of externally nesting birds or roosting bats was identified during the inspection of **B3**. There was no physical evidence of externally nesting birds or roosting bats.

Internal Inspection

The ceiling of **B3** is constructed from a breathable membrane and supported by timber beams. The internal walls are made of breeze blocks and some sections of cement blocks. The roof included several pipes as part of its structure, likely used for kitchen ventilation and smoke extraction, as well as a kitchen hood outlet. Some asbestos material was also present in the roof. Inside, spiderwebs were observed, indicating a lack of flying species. Natural light was able to permeate the interior of the building, and some additional piping was noted along the internal walls. There was no physical evidence of internally nesting birds or roosting bats.

Summary of Building Inspection

Due to the amount of potential ingress/egress points and suitable roosting features, the structures of **B1**, **B2**, & **B3** at Peggs Close, Earl Shilton were deemed as having the following bat and bird potentials. It should be noted that one bat activity survey is required for these buildings, as they are being demolished and bats may be affected by the works.

Building Reference	Bat Potential	Bird Potential	Number of bat activity surveys required	Number of surveyors required
B1	High	High	1	3
B2	High	High	1	3
B3	High	High	1	4

Table 1: Low/Moderate/High potential building(s) survey recommendations. The full guidance can be found in the Bat Conservation Trust Good Practice Survey Guidelines. These guidelines are what all local authorities abide by.

Table 7.2. Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability or PRF-I	Moderate roost suitability	High roost suitability or PRF-M
One survey visit. One dusk emergence survey ^a (structures). No further surveys required (trees).	Two separate dusk emergence survey visits ^b .	Three separate dusk emergence survey visits ^b .
a Structures that have been categorised as low potential can be problematic and the number of surveys required should be judged on a case-by-case basis (see para 5.2.44). In some cases, more than one survey may be needed, particularly where there are several buildings in this category. b Multiple survey visits should be spread out to sample as much of the recommended survey period (see Table 7.1) as possible; it is recommended that surveys are spaced at least three weeks apart, preferably more.		

4.1.5 u1e 612 853- Built Linear Feature

UKHAB Secondary Code(s)	Definition
612	Fence
853	Mortared Wall

Several small areas of metal and wooden fence built are located on the western and northern sides of the site. This habitat contains rare ground ivy (*Glechoma hederacea*) and hedge bindweed (*Calystegia sepium*).

Some parts of the site are divided by walls located in the southern and north-western areas. These walls are primarily used to enclose bin storage areas. They are constructed from mortared wall. Additionally, a second wall line, made of half wood and half brick, runs along the boundary between the modified grassland and the street, separating the residential apartment area from the public thoroughfare. They are not likely to act as barriers that would prevent protected species from accessing the site

4.1.7 u1f – Sparsely vegetated urban land

Some areas on the south of the site are covered by sparsely vegetated urban habitat. This habitat includes some occasional species such as buddleia (*Buddleja davidii*), milk thistle (*Silybum marianum*), and rosebay willowherb (*Chamaenerion angustifolium*), as well as several rare species such as birch (*Betula* sp.), cow parsley (*Anthriscus sylvestris*), dandelion (*Taraxacum officinale*), herb Robert (*Geranium robertianum*), lemon balm (*Melissa officinalis*), love-in-a-mist (*Nigella damascene*), nipplewort (*Lapsana communis*), smooth cat ear (*Hypochaeris glabra*), and sycamore (*Acer pseudoplatanus*).

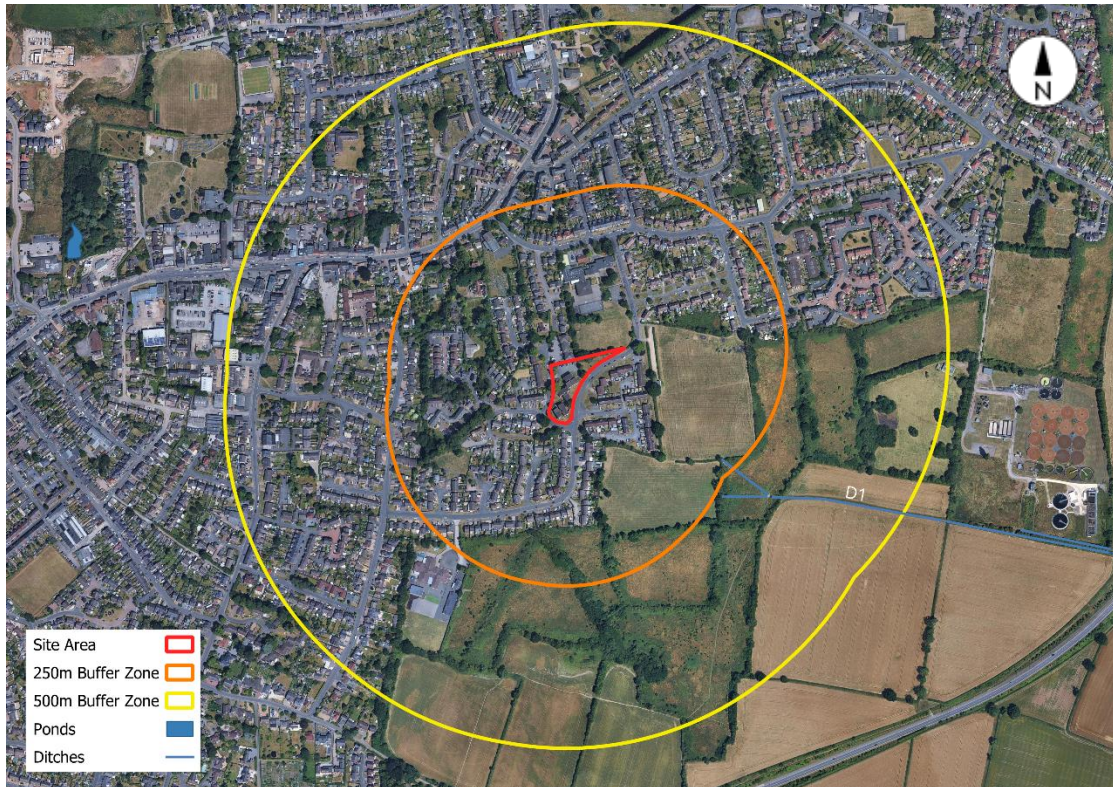
4.2 Species

The preliminary ecological appraisal survey revealed that the habitats that have been outlined for the proposed development area do contain protected species potential. The following assessment has also considered the adjacent habitats and connectivity to the wider landscape for all protected and rare species.

4.2.1 Amphibians (including great crested newts)

The potential for amphibians to be present on-site is considered to be **negligible**. A ditch is present within 250m of the site, with only a minor road between it and the site. However, the site comprises residential buildings with predominantly hard standing surfaces, and no ponds or watercourses are located within 500m (see **Figure 5**). As such, no further action is required for amphibians.

Figure 5: An aerial map of the site at Peggs Close, Earl Shilton (red outline) showing the location of ponds (blue fill) and ditches (blue lines) within a 500m buffer zone (yellow outline), and 250m buffer zone (orange outline) of the site.



4.2.2 Badgers (*Meles meles*)

No evidence of badger activity (e.g. setts, latrines, foraging signs, or pathways) was recorded during the site survey. Also, no evidence of badgers was identified within 50m of the site. However, records of badgers in the wider landscape were returned in the ecological data search provided by LRERC. Given the lack of field signs on-site and the habitat that could be utilised as sett creation features, the likelihood of badger presence is considered **negligible**, and no further action is required.

4.2.3 Bats

The site contains features to support foraging and commuting bats, such as the trees which make the potential of bat foraging **low**. In addition, **B1**, **B2**, and **B3** have **high** potential to support roosting bats. Based on the building being demolished, further survey action is required (please see **Section 5.3**).

4.2.4 Birds

The site contains a range of habitats, including buildings, shrubs, and trees, which provide suitable conditions for nesting and foraging. As a result, the site is assessed as having **high** potential to support breeding birds, particularly during the breeding season. As such, further precautionary measures will be required (please see **Section 5.3**).

4.2.5 Crustaceans

No suitable aquatic habitats for crustaceans are present on-site. Although a ditch is located approximately 250m from the site, there is no direct water stream connection or suitable habitat to support protected crustacean species within the site boundary. Therefore, the potential for crustaceans to be present on-site is considered **negligible**, and no further action is required.

4.2.6 Fish

There are no aquatic features on-site capable of supporting fish. While a ditch lies approximately 250 m from the site, there is no water sources or habitat on site to potential to support protected species. As a result, the likelihood of fish occurring on the site is **negligible**, and no further action is required.

4.2.7 Flora

The site contains no protected floral species, and the habitats present are not considered likely to support them. Therefore, the potential for protected flora to occur on the site is considered **negligible**, and no further action is required.

4.2.8 Hazel Dormouse (*Muscardinus avellanarius*)

The site does not contain suitable habitats, such as woodland or dense hedgerows, for hazel dormice. In addition to this, there have been reintroductions of this species within Leicestershire, but none of these lie nearby to the site. Therefore, the potential for hazel dormice to be present on the site is considered **negligible**, and no further action is required.

4.2.9 Hedgehogs (*Erinaceus europaeus*)

The site contains areas of grassland, but these habitats are relatively limited in extent and are surrounded by urban development and hard standing surfaces. As a result, the potential for hedgehogs to be present on the site is considered **low**. As such, further precautionary measures will be required (please see **Section 5.3**).

4.2.10 Invertebrates

The site includes areas of tree and shrub cover, providing some habitat for invertebrates. However, due to the limited extent of suitable habitat and the surrounding environment, the potential for invertebrate species to be present on the site is considered **low**, and no further action is required.

4.2.11 Otters (*Lutra lutra*)

The site does not contain suitable aquatic habitats, such as rivers, streams, or large water bodies, that would support otters. Additionally, there are no watercourses or significant water features within or near the site. As such, the potential for otters to be present on-site is considered **negligible**, and no further action is required.

4.2.12 Reptiles

Based on the site conditions and the nature of the habitat, which does not provide suitable environments for reptiles, there is no evidence to suggest the presence of reptiles on the site. Therefore, the potential for reptiles to be present on the site is considered **negligible**, and no further action required.

4.2.13 Water Voles (*Arvicola amphibius*)

Based on the site conditions and the characteristics of the habitat, which do not provide the necessary features for supporting water voles, there is no evidence to suggest the presence of water voles on the site. Therefore, the potential for water voles to be present on the site is considered **negligible**, and no further action is required.

4.3 Potential Impacts of the Works

Based upon the results from the desktop survey, field survey and using a degree of academic supposition, the uncompensated development impacts have been summarised as follows:

- Amphibians – **Negligible**
- Badgers – **Negligible**
- Bat foraging and commuting – **Moderate**
- Bat roosting – **Unknown**
- Birds – **High**
- Crustaceans – **Negligible**
- Fish – **Negligible**
- Flora – **Negligible**
- Hazel dormouse – **Negligible**
- Hedgehogs – **Low**
- Invertebrates – **Negligible**
- Molluscs – **Negligible**
- Otters - **Negligible**
- Reptiles – **Negligible**
- Water Voles - **Negligible**

5. Recommendations

5.1 Designated Sites

No designated sites that were revealed by the ecological data search provided by LRERC fell on the proposed re-development site itself, nor were any revealed immediately adjacent to the site. Therefore, the proposed re-development will have no impact upon any local designated sites as the works are due to remain within the site boundary.

5.2 Habitats

No habitats of conservation concern were located on the site itself. Therefore, the proposed scheme of works will not impact upon any rare or valuable habitats.

5.3 Species

The site was found to contain the potential to support protected and/or rare species. Therefore, the following recommendations are required for the site:

5.3.1 Bats

Due to the potential roosting features identified on **B1**, **B2** and **B3**, a minimum of three bat emergence survey will be required on the buildings. These are required to be undertaken during the bat survey season of May to September (inclusive), although it is recommended that a minimum of two of these are undertaken in the optimum bat survey season of mid-May to August (inclusive). A total of ten surveyors will be required in total to cover all areas of the buildings and trees that are likely for bats to emerge or enter from.

Further compensation, mitigation, and enhancement measures will be outlined following the further survey effort.

5.3.2 Birds

Due to there being suitable bird breeding habitat within the site, all building works should be undertaken outside of the bird breeding season (March to August). If trees and/or structures are required to be removed during the bird breeding season, then a further inspection by a suitably qualified ecologist is required no more than twenty-four hours before these are to be removed. This is to ensure that no active nest site is illegally destroyed, due to the protection afforded to all active bird nests under the Wildlife and Countryside Act 1981.

If an active nest is found by a site inspection, an exclusion zone around the nest will be necessary, where no vegetation removal can take place, to preserve this feature until the chicks have fledged the nest.

5.3.3 Hedgehogs (*Erinaceus europaeus*)

If hedge or dense vegetation is cleared between the 1st of November and the 31st of March, then an inspection by a suitably qualified ecologist is required to ensure no hibernating hedgehogs are present on site.

It is recommended that precautionary measures are incorporated if construction is undertaken at other times of the year. This will be to create provisions for hedgehogs to escape from all trenches dug into the ground, by creating slopes or providing ramps at the end of each working day.

Additionally, any pipework left on site that is greater than 150mm in diameter will need to be planked off. Should this information be strictly adhered to, then the development works will not negatively impact on the local mammal populations.

5.4 **Site Enhancements**

For the proposed development works, the following site enhancement measures could be incorporated into the site post-development. These measures are optional but are bespoke to the site surveyed for the enhancement of biodiversity. Once the options have been finalised, the locations of these features should be placed on a master plan.

5.4.1 **Bats**

In order to improve the roosting opportunities on site, a variety of bat boxes can be installed around the site. These can be purchased by contacting admin@eliteecology.co.uk.

The site can be enhanced by introducing a bat friendly planting scheme in the soft landscaping plan. The table below outlines species recommended by the Bat Conservation Trust, all of which could be incorporated into the site post development.

Flowers for borders	Trees, shrubs & climbers
Aubretia	Bramble
Candytuft	Common alder
Cherry pie	Dogrose
Corncockle	Elder
Corn marigold	English oak
Corn poppy	Gorse
Echniacea	Gelder rose
English bluebell	Hawthorn
Evening primrose	Hazel
Field poppies	Honeysuckle (native)
Honesty	Hornbeam
Ice plant 'pink lady'	Ivy
Knapweed	Jasmine
Mallow	Pussy willow
Mexican aster	Rowan
Michaelmas daisy	Silver birch
Night-scented stock	Herbs
Ox-eye daisy	Angelica
Phacelia	Bergamot
Poached egg plant	Borage
Primrose	Coriander
Red campion	English marigolds
Red valerian	Fennel
Scabious	Feverfew
St. John's Wort	Hyssop
Sweet William	Lavenders
Tobacco plant	Lemon balm
Verbena	Marjoram
Wallflowers	Rosemary
Wood forget-me-not	Sweet Cicely
Yarrow	Thyme

5.4.2 **Birds**

The site could be enhanced for birds by installing a variety of bird boxes on site, such as an Apex Bird Box and an Apex Robin Box. Boxes can be ordered by contacting Elite Ecology at: admin@eliteecology.co.uk.

5.4.3 Flora

At present, the site is not considered to have a diverse range of flora. Therefore, it is recommended that a small section of the site is converted into a 'wild meadow' that uses native wildflower seed mixes. A variety of these can be found on the [Meadowmania](#) or [Wildflower Turf](#) webpages.

To enhance the site for the local bat and bird populations several native shrubs and herbs could be included within the 'wild meadow' which will provide excellent foraging habitat. More information on shrubs for bats can be found on the [Wildlife Trust website](#) and more information on shrubs for birds can be found on the [RSPB website](#). There are several different shrubs to choose from but it is important to avoid invasive species such as buddleia, more information on invasive flora can be found on the [RSPB website](#).

5.4.4 Hedgehogs (*Erinaceus europaeus*)

The site could be enhanced for the local hedgehog population by installing at least one Eco Hedgehog Nest Box on the site. These can be ordered by contacting Elite Ecology at: admin@eliteecology.co.uk. This will create more opportunities for hedgehogs within the local landscape.

5.4.5 Invertebrates

At present, the site is not considered to be of any importance to local invertebrate populations. In conjunction with the wildflower planting, it is recommended that at least two [Bumblebee Boxes](#) are incorporated into the scheme, along with at least two [Bug Hotels](#). These can be ordered by contacting Elite Ecology at: admin@eliteecology.co.uk. This will enhance the site for the local invertebrate populations, which will thus attract species further up in the trophic level.

The site would benefit from plants rich in a pollen source throughout the year to enhance the area for the potential of bees. In order to ensure a nectar source year-round it is important to use plants that are relevant to the season. The table below includes just a few examples of which plants thrive through the different seasons to ensure a bee friendly area.

SPRING	SUMMER	AUTUMN	WINTER
• Alliums Bugle • Crab Apple • Daffodils • Flowering Cherry • Hawthorn • Sea Thrift	• Angelica sylvestris • Campanula latifolia • Comfrey • Echinops • Foxgloves • Scabious	• Aster tripolium • Common Ivy • Sedums	• Hellebores foetidus, • Salix aegyptica • Salix caprea • Winter-flowering heather

5.5 Biodiversity Net Gain

Biodiversity net gain needs to be ensured within the scheme of work, and this will be devised utilising the latest DEFRA metric.

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7. Appendices

Appendix A: Site Plans

Appendix B: Desktop Study Table

Appendix C: Desktop Study Maps

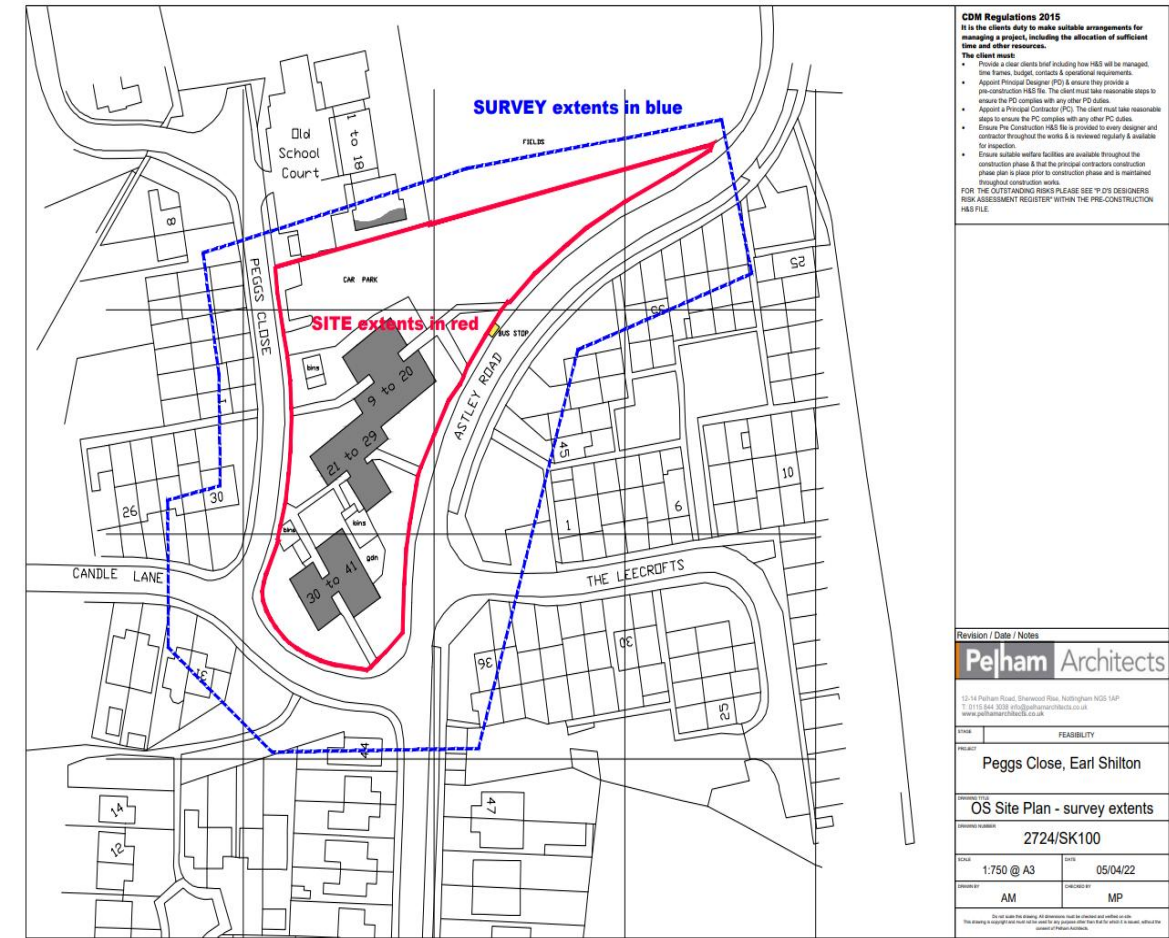
Appendix D: Phase 1 Habitat Map

Appendix E: Site Photographs

Appendix F: Biodiversity Legislation and Policy

Appendix G: Bat and Artificial Light

Appendix A: Site Plans



Appendix B: Desktop Study Tables

The results within the following table are a collation of the species identified within the desktop search, undertaken by Leicestershire and Rutland Environmental Records Centre.

Amphibians	
Common Name	Latin Name
Common Frog	<i>Rana temporaria</i>
Common Toad	<i>Bufo bufo</i>
Great Crested Newt	<i>Triturus cristatus</i>
Palmate Newt	<i>Lissotriton helveticus</i>
Smooth Newt	<i>Lissotriton vulgaris</i>
Birds	
Common Name	Latin Name
Barn Owl	<i>Tyto alba</i>
Brambling	<i>Fringilla montifringilla</i>
Bullfinch	<i>Pyrrhula pyrrhula</i>
Canada Goose	<i>Branta canadensis</i>
Common Scoter	<i>Melanitta nigra</i>
Cuckoo	<i>Cuculus canorus</i>
Curlew	<i>Numenius arquata</i>
Dunnock	<i>Prunella modularis</i>
Fieldfare	<i>Turdus pilaris</i>
Green Sandpiper	<i>Tringa ochropus</i>
Greenshank	<i>Tringa nebularia</i>
Grey Partridge	<i>Perdix perdix</i>
Greylag Goose	<i>Anser anser</i>
Herring Gull	<i>Larus argentatus</i>
Hobby	<i>Falco subbuteo</i>
House Martin	<i>Delichon urbicum</i>
House Sparrow	<i>Passer domesticus</i>
Indet. Harrier	<i>Circus</i>
Kingfisher	<i>Alcedo atthis</i>
Lapwing	<i>Vanellus vanellus</i>
Lesser Redpoll	<i>Acanthis cabaret</i>
Lesser Spotted Woodpecker	<i>Dryobates minor</i>
Linnet	<i>Linaria cannabina</i>
Little Ringed Plover	<i>Charadrius dubius</i>
Marsh Tit	<i>Poecile palustris</i>
Merlin	<i>Falco columbarius</i>
Nightjar	<i>Caprimulgus europaeus</i>
Peregrine	<i>Falco peregrinus</i>

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Red Kite	<i>Milvus milvus</i>
Redstart	<i>Phoenicurus phoenicurus</i>
Redwing	<i>Turdus iliacus</i>
Reed Bunting	<i>Emberiza schoeniclus</i>
Sand Martin	<i>Riparia riparia</i>
Skylark	<i>Alauda arvensis</i>
Song Thrush	<i>Turdus philomelos</i>
Spotted Flycatcher	<i>Muscicapa striata</i>
Starling	<i>Sturnus vulgaris</i>
Swallow	<i>Hirundo rustica</i>
Swift	<i>Apus apus</i>
Tree Pipit	<i>Anthus trivialis</i>
Tree Sparrow	<i>Passer montanus</i>
Tundra Swan	<i>Cygnus columbianus</i>
Whimbrel	<i>Numenius phaeopus</i>
Willow Tit	<i>Poecile montanus</i>
Yellow Wagtail	<i>Motacilla flava</i>
Yellowhammer	<i>Emberiza citrinella</i>
Crustaceans	
Common Name	Latin Name
Signal Crayfish	<i>Pacifastacus leniusculus</i>
Flora	
Common Name	Latin Name
Bluebell	<i>Hyacinthoides non-scripta</i>
Bluebell	<i>Hyacinthoides non-scripta x hispanica</i> = <i>H. x massartiana</i>
Bogbean	<i>Menyanthes trifoliata</i>
Buck's-horn Plantain	<i>Plantago coronopus</i>
Caper Spurge	<i>Euphorbia lathyris</i>
Cherry Laurel	<i>Prunus laurocerasus</i>
Chicory	<i>Cichorium intybus</i>
Columbine	<i>Aquilegia vulgaris</i>
Common Cornsalad	<i>Valerianella locusta</i>
Cornflower	<i>Centaurea cyanus</i>
Curly Waterweed	<i>Lagarosiphon major</i>
Devil's-bit Scabious	<i>Succisa pratensis</i>
Fennel	<i>Foeniculum vulgare</i>
Field Scabious	<i>Knautia arvensis</i>
Garden Asparagus	<i>Asparagus officinalis</i>
Greater Butterfly-orchid	<i>Platanthera chlorantha</i>
Greater Celandine	<i>Chelidonium majus</i>

Preliminary Ecological Appraisal

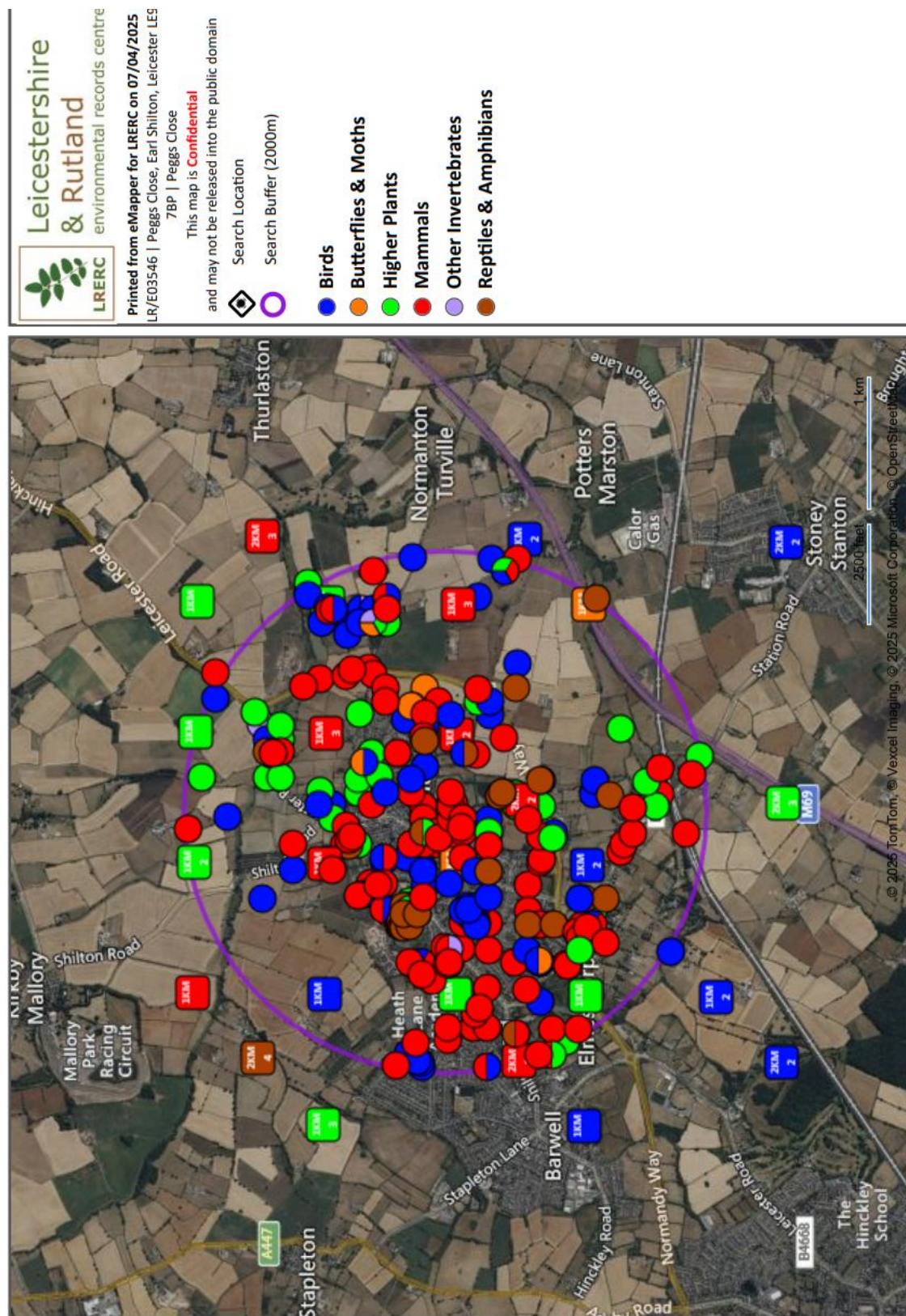
Greater Duckweed	<i>Spirodela polyrhiza</i>
Harebell	<i>Campanula rotundifolia</i>
Himalayan Balsam	<i>Impatiens glandulifera</i>
Hoary Plantain	<i>Plantago media</i>
Japanese Knotweed	<i>Fallopia japonica</i>
Japanese Rose	<i>Rosa rugosa</i>
Keeled-fruited Cornsalad	<i>Valerianella carinata</i>
Least Duckweed	<i>Lemna minuta</i>
Lesser Hawkbit	<i>Leontodon saxatilis</i>
Lily-of-the-valley	<i>Convallaria majalis</i>
Marsh Ragwort	<i>Jacobaea aquatica</i>
Mat-grass	<i>Nardus stricta</i>
Nuttall's Waterweed	<i>Elodea nuttallii</i>
Orpine	<i>Sedum telephium</i>
Portugal Laurel	<i>Prunus lusitanica</i>
Quaking-grass	<i>Briza media</i>
Ragged-Robin	<i>Silene flos-cuculi</i>
Ramping Fumitory	<i>Fumaria capreolata</i> subsp. <i>babingtonii</i>
Rhododendron ponticum	<i>Rhododendron ponticum</i>
Rye Brome	<i>Bromus secalinus</i>
Sand Spurrey	<i>Spergularia rubra</i>
Scarlet Pimpernel	<i>Anagallis arvensis</i> subsp. <i>arvensis</i>
Small-leaved Lime	<i>Tilia cordata</i>
Spanish Bluebell	<i>Hyacinthoides hispanica</i>
Spear Mint	<i>Mentha spicata</i>
Three-cornered Garlic	<i>Allium triquetrum</i>
Variegated Yellow Archangel	<i>Lamium galeobdolon</i> subsp. <i>argentatum</i>
Wall Cotoneaster	<i>Cotoneaster horizontalis</i>
Water Fern	<i>Azolla filiculoides</i>
White Stonecrop	<i>Sedum album</i>
Wild Strawberry	<i>Fragaria vesca</i>
Wood-sorrel	<i>Oxalis acetosella</i>
Invertebrates	
Common Name	Latin Name
Blood-vein	<i>Timandra comae</i>
Brindled Beauty	<i>Lycia hirtaria</i>
Buff Ermine	<i>Spilosoma lutea</i>
Cinnabar	<i>Tyria jacobaeae</i>
Dot Moth	<i>Melanchra persicariae</i>
Dusky Thorn	<i>Ennomos fuscantaria</i>
Grey Dagger	<i>Acronicta psi</i>
Harlequin Ladybird	<i>Harmonia axyridis</i>

Preliminary Ecological Appraisal

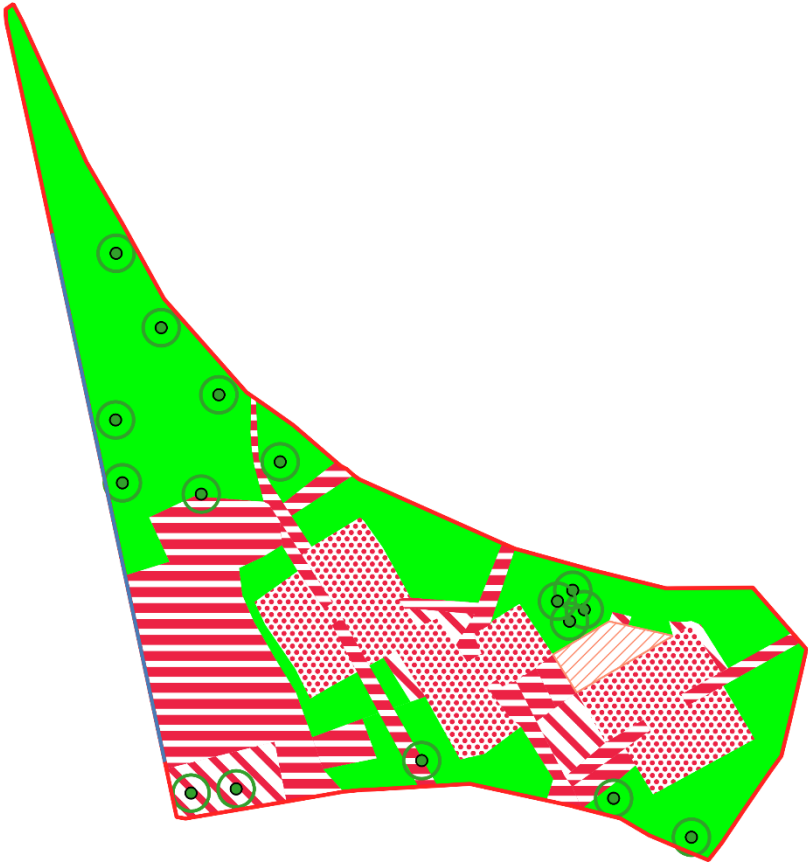
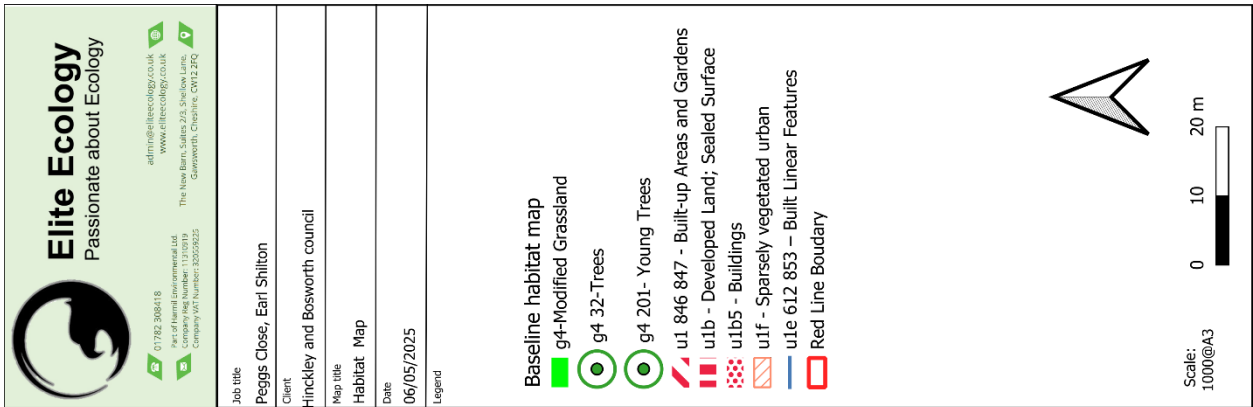
Knot Grass	<i>Acronicta rumicis</i>
Mottled Rustic	<i>Caradrina morpheus</i>
Mouse Moth	<i>Amphipyra tragopoginis</i>
Pale Eggar	<i>Trichiura crataegi</i>
Powdered Quaker	<i>Orthosia gracilis</i>
Shaded Broad-bar	<i>Scotopteryx chenopodiata</i>
Shoulder-striped Wainscot	<i>Leucania comma</i>
Small Heath	<i>Coenonympha pamphilus</i>
Small Square-spot	<i>Diarsia rubi</i>
White Ermine	<i>Spilosoma lubricipeda</i>
Mammals	
Common Name	Latin Name
American Mink	<i>Neovison vison</i>
Muntjac	<i>Muntiacus reevesi</i>
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>
Brown Long-eared Bat	<i>Plecotus auritus</i>
Pipistrelle Bat species	<i>Pipistrellus</i>
Bat	<i>Chiroptera</i>
Water Vole	<i>Arvicola amphibius</i>
Noctule	<i>Nyctalus noctula</i>
Badger	<i>Meles meles</i>
Myotis Bat species	<i>Myotis</i>
Leisler's Bat	<i>Nyctalus leisleri</i>
Nathusius's Pipistrelle	<i>Pipistrellus nathusii</i>
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>
Nyctalus Bat species	<i>Nyctalus</i>
Serotine	<i>Eptesicus serotinus</i>
Otter	<i>Lutra lutra</i>
Long-eared Bat species	<i>Plecotus</i>
Daubenton's Bat	<i>Myotis daubentonii</i>
Reptiles	
Common Name	Latin Name
Grass Snake	<i>Natrix helvetica</i>

Appendix C: Desktop Study Maps

This map has been produced by LRERC. All rights concerning it belong to them.



Appendix D: UKHab Map



Appendix E: Site Photographs

Plate 1: Image showing the western elevation of **B1**.



Plate 2: Image showing the southern elevation of **B1**.

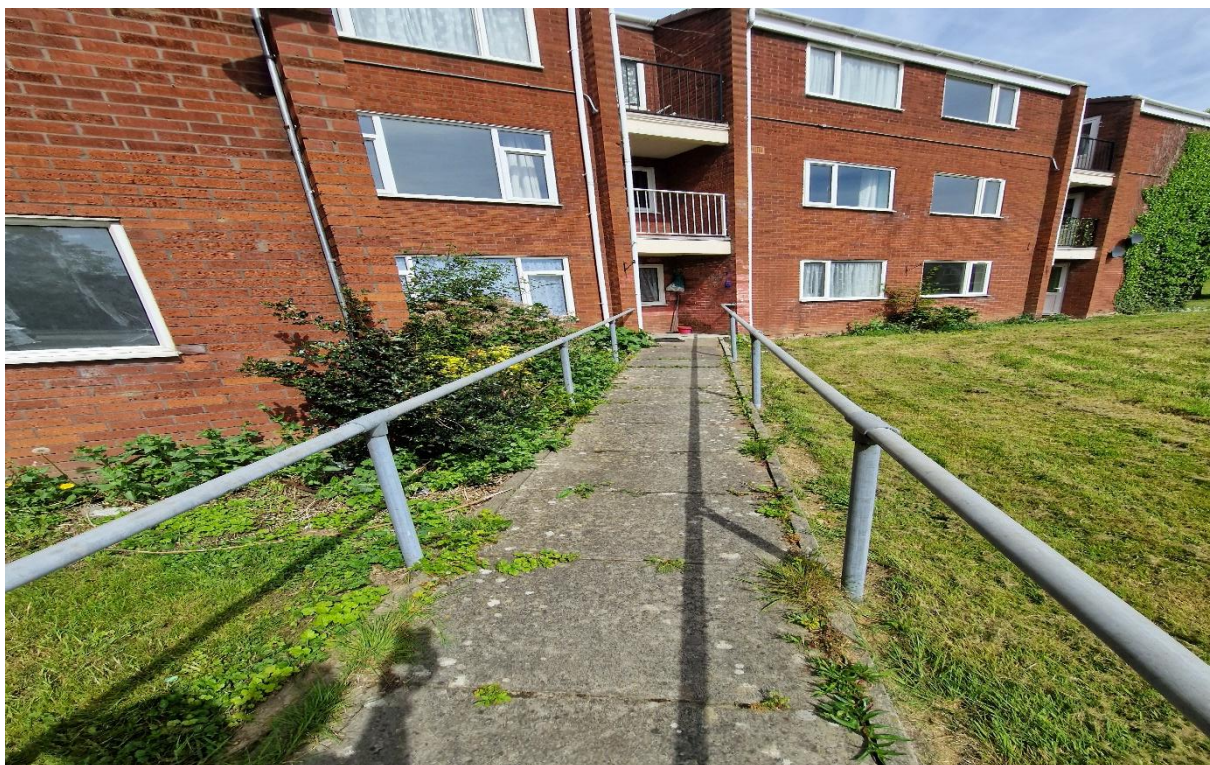


Plate 3: Image showing the eastern elevation of **B1**.



Plate 4: Image showing the eastern elevation of **B2**.



Plate 5: Image showing the northern elevation of **B2**.



Plate 6: Image showing the northern elevation of **B2**.



Plate 7: Image showing the western and northern elevation of **B1** and **B2**.



Plate 8: Image showing the northern elevation of **B3**.



Plate 9: Image showing the western elevation of **B3**.



Plate 10: Image showing the lifted flashing on the southern elevation of **B1**.



Plate 11: Image showing the drip edge vent on **B1**.



Plate12: Image showing the missing edge tile on **B1**.



Plate 13: Image showing the vent in flashing part of **B2**.



Plate 14: image showing the ridge vent on **B1**.



Plate 15: Image showing loose wood panels on **B3**.



Plate 16: Image showing the missing wood panels on **B3**.



Plate 17: Image showing the modified grassland on the north-east of the site



Plate 18: Image showing the scattered trees on the western side of site.



Plate 19: Image showing the young trees on the eastern side of site.



Plate 20: Image showing the introduced shrub habitat on the north-west of the site.



Plate 21: Image showing flower bed habitat on the southern side of site.



Plate 22: Image showing the sealed surface in the north of the site.



Plate 23: Image showing the fence on the northern side of site.



Plate 24: Image showing the wall on the centre of the site.



Appendix F: Biodiversity Legislation and Policy**General Legislation and Policy:**

The framework of legislation and policy which underpins nature conservation in England. This is a material consideration in the planning process in England.

Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2010 as amended)

The Conservation of Habitats and Species Regulations 2017 consolidate and update the Conservation Regulations 1994 and the conservation of habitats and species regulations 2010 (and all their amendments). The Conservation of Habitats and Species Regulations 2017 are the principal means by which the EEC Council Directive 92/43 (The Habitats Directive) as amended is transposed into English and Welsh law.

The Conservation of Habitats and Species Regulations 2017 place duty upon the relevant authority of government to identify sites which are of importance to the habitats and species listed in Annexes I and II of the Habitats Directive. Those sites which meet the criteria are, in conjunction with the European Commission, designated as Sites of Community Importance, which are subsequently identified as Special Areas of Conservation (SAC) by the European Union member states. The regulations also place a duty upon the government to maintain a register of European protected sites designated as a result of EC Directive 79/409/EEC on the Conservation of Wild Birds (The Birds Directive). These sites are termed Special Protection Areas (SPA) and, in conjunction with SACs, form a network of sites known as Natura 2000. The Habitats Directive introduces for the first time for protected areas, the precautionary principle; that is that projects can only be permitted having ascertained no adverse effect on the integrity of the site. Projects may still be permitted if there are no alternatives, and there are imperative reasons of overriding public interest.

The Conservation of Habitats and Species Regulations 2017 also provide for the protection of individual species of fauna and flora of European conservation concern listed in Schedules 2 and 5 respectively. Schedule 2 includes species such as otter and great crested newt for which the UK population represents a significant proportion of the total European population. It is an offence to deliberately kill, injure, disturb or trade these species. Schedule 5 plant species are protected from unlawful destruction, uprooting or trade under the regulations.

The Wildlife and Countryside Act (WCA) 1981 (As amended)

The WCA, as amended, consolidates and amends pre-existing national wildlife legislation in order to implement the Bern Convention and the Birds Directive. It complements the Conservation (Natural Habitats. & c.) Regulations 1994 (as amended), offering protection to a wider range of species. The Act also provides for the designation and protection of national conservation sites of value for their floral, faunal or geological features, termed Sites of Special Scientific Interest (SSSIs).

Schedules of the act provide lists of protected species, both flora and fauna, and detail the possible offences that apply to these species.

The Countryside and Rights of Way (CROW) Act 2000

The CROW Act, introduced in England and Wales in 2000, amends and strengthens existing wildlife legislation detailed in the WCA. It places a duty on government departments and the National Assembly for Wales to have regard for biodiversity, and provides increased powers for the protection and maintenance of SSSIs.

The Act also contains lists of habitats and species (Section 74) for which conservation measures should be promoted, in accordance with the recommendations of the Convention on Biological Diversity (Rio Earth Summit) 1992.

The Natural Environment and Rural Communities (NERC) Act 2006

Section 40 of the NERC Act places a duty upon all local authorities and public bodies in England and Wales to promote and enhance biodiversity in all of their functions. Sections 41 (England) and 42 (Wales) list habitats and species of principal importance to the conservation of biodiversity. These lists supersede Section 74 of the CRoW Act 2000. These species and habitats are a material consideration in the planning process.

The Hedgerow Regulations 1997

The Hedgerow Regulations make provision for the identification of important hedgerows which may not be removed without permission from the Local Planning Authority.

UK Biodiversity Action Plan

The United Kingdom Biodiversity Action Plan (UKBAP), first published in 1994 and updated in 2007, is a government initiative designed to implement the requirements of the Convention of Biological Diversity to conserve and enhance species and habitats. The UKBAP contains a list of priority habitats and species of conservation concern in the UK, and outlines biodiversity initiatives designed to enhance their conservation status. Lists of Broad and Local habitats are also included. The priority habitats and species correlate with those listed on Section 41 and 42 of the NERC Act.

The UKBAP requires that conservation of biodiversity is addressed at a County level through the production of Local BAPs. These are complementary to the UKBAP, however are targeted towards species of conservation concern characteristic of each area. In addition, a number of local authorities and large organisations have produced their own BAPs. UKBAP and Local BAP targets with regard to species and habitats are a material consideration in the planning process.

Leicestershire & Rutland environmental records centre

The **Leicestershire & Rutland environmental records centre (LRERC)** was adopted as part of the Environment Act 2021 and aims to set priorities for nature conservation and recovery in Leicestershire the priorities of the LRERC are to give a description of the biodiversity within the county and to provide opportunities for recovering and/or enhancing biodiversity in the county in order to prioritise areas or species for biodiversity recovery and enhancement.

Planning Policy (England) and National Planning Policy Framework

In early 2012, the National Planning Policy Framework (NPPF) replaced much previous planning policy guidance, including Planning Policy Statement 9: Biological and Geological Conservation. The government circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System, which accompanied PPS9, still remains valid. A presumption towards sustainable development is at the heart of the NPPF. This presumption does not apply however where developments require appropriate assessment under the Birds or Habitats Directives. The latest National Planning Policy Framework was updated in February 2019, with the section in relation to conserving the natural environment being located within section 15.

Section 15, on conserving and enhancing the natural environment, sets out how the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and, where possible, provide net gains in biodiversity. Opportunities to incorporate biodiversity gains into a development should be encouraged.

If a proposed development would result in significant harm to the natural environment which cannot be avoided (through the use of an alternative site with less harmful impacts), mitigated or compensated for (as a last resort) then planning permission should be refused.

Species Specific Legislation

This section contains a summary of legislation with relation to the species present or potentially present in the survey area. The reader should refer to the original legislation for definitive interpretation.

Nesting and Nest Building Birds

Nesting and nest building birds are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Some species (listed in Schedule 1 of the WCA) are protected by special penalties.

Subject to the provisions of the act, if any person intentionally:

- kills, injures or takes any wild bird;
- takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
- takes or destroys an egg of any wild bird, he shall be guilty of an offence.

'Reckless' offences with regard to the disturbance of nesting wild birds included in Schedule 1 of the Wildlife and Countryside Act were added by the Countryside and Rights of Way Act 2000.

The Natural Environment and Rural Communities (NERC) Act 2006 places a duty on Government Departments to have regard for the conservation of biodiversity and maintains lists of species and habitats which are of principal importance for the purposes of conserving biodiversity in England and Wales. These lists include a number of bird species.

The reader is referred to the original legislation for the definitive interpretation.

Badger

The main legislation protecting badgers in England and Wales is the Protection of Badgers Act 1992 (the 1992 Act). Under the 1992 Act it is an offence to:

- wilfully kill, injure, take or attempt to kill, injure or take a badger;
- possess a dead badger or any part of a badger;
- cruelly ill-treat a badger;
- use badger tongs in the course of killing, taking or attempting to kill a badger;
- dig for a badger;
- sell or offer for sale or control any live badger;
- mark, tag or ring a badger; and
- interfere with a badger sett by:
 - damaging a sett or any part thereof;
 - destroying a sett;
 - obstructing access to a sett;
 - causing a dog to enter a sett; and
 - disturbing a badger while occupying a sett.

The 1992 Act defines a badger sett as: "any structure or place which displays signs indicating current use by a badger".

Bats

All species of bat are fully protected under a variety of domestic, European and international legislation and conventions. These include:

- Bern Convention (Appendix II)
- Bonn Convention (Appendix II)
- Conservation Regulations (Northern Ireland) 1995
- Conservation of Habitats and Species Regulations 2017
- Countryside Rights of Way Act 2000
- Eurobats Agreement
- Habitats Directive (Annexes IV and II)
- Habitats Regulations 1994 (as amended) Scotland
- NERC Act 2006
- Wildlife and Countryside Act 1981 (as amended)
- Wild Mammals Protection Act

In addition to this, some species have additional protection by being listed on the UK Biodiversity Action Plan (UKBAP).

The legislation afforded to bats makes it illegal to possess or control any live or dead specimens, to damage, destroy or obstruct access to any structure or place used for shelter, protection or breeding, and to intentionally disturb a bat while it is occupying a structure or place which it uses for that purpose.

All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), which protects birds, nests, eggs and nestlings from harm. In addition to this, some rarer species, such as barn owls are afforded extra protection.

National Planning Policy Framework, Section 15:

The published framework in 2018 replaces the previous Planning Policy Statement 9 and National Planning Policy (dated 2012).

Section 15: Conserving and enhancing the natural environment reaffirms the government's commitment to maintaining green belt protections and preventing urban sprawl, retains the protection of designated sites and preserves wildlife. It also aims to improve the quality of the natural environment and halt declines in species and habitats, protects and enhances biodiversity and promotes wildlife corridors.

Biodiversity 2020:

This sets out to halt overall biodiversity loss and support healthy well-functioning ecosystems by establishing coherent ecological networks, with more and better places for nature, to the benefit of wildlife and people. The government's policy is aimed at individuals, communities, local authorities, charities, business and government, which all have a role to play in delivering Biodiversity 2020.

Freshwater White-clawed Crayfish

The white-clawed crayfish is partially protected under Wildlife and Countryside Act 1981 (as amended). It is listed on schedule 5 and therefore afforded protection under Section 9 (1 and 5). Therefore, it is an offence to take white-clawed crayfish and to sell, or attempt to sell, any part of the species, alive or dead, or intend to buy or sell.

Great Crested Newt

The great crested newt (*Triturus cristatus*) is fully protected under a variety of legislation and conventions. These include:

- Bern Convention (Appendix II)
- Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)
- Conservation of Habitats and Species Regulations 2017
- EU Habitats Directive (Annex II and IV)
- Nature Conservation (Scotland) Act 2004
- NERC Act 2006 (Section 41 England; Section 42 Wales)
- Wildlife and Countryside Act 1981 (as amended)

In addition to this, the great crested newt has been listed as a priority species on the UK Biodiversity Action Plan (UKBAP).

This legislation covers all aspects of newt life stages (eggs, efts and adult newts) and makes it illegal to damage, destroy or obstruct access to any structure or place used for shelter, protection or breeding, and to intentionally disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.

Licenses can be obtained from Natural England (DEFRA) under the Conservation (Natural Habitats etc.) Regulations 1994, to permit activities for the purposes of:

- Regulation 44(2)(e): 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, or
- Regulation 44(2)(f): Preventing the spread of disease
- Regulation 44(2)(g): Preventing serious damage to any form of property or fisheries
- Or
- If there is no satisfactory alternative.

The above regulations allow people to carry out activities which would otherwise be illegal.

Hazel Dormouse

Hazel Dormouse and their habitats are protected by:

- Wildlife and Countryside Act 1981 (as amended)
- Countryside Rights of Way (CROW) 2000
- The Natural Environment and Rural Communities Act 2006
- Conservation of Habitat and Species Regulations 2017

These make it an offence to:

- Capture, injure or kill a Hazel Dormouse
- Disturb a Hazel Dormouse
- Damage or destroy breeding or nesting sites in use by Hazel Dormice
- Disturb a Dormouse whilst it is occupying a structure or place that they use for shelter or protection
- Obstruct access to any structure or place that the Dormouse uses for shelter and protection.
- To possess or control any live or dead specimens.

Otter

Otters are fully protected by the European Habitats Directive (92/43/EEC) by being incorporated in annex II of the legislation. In addition to this, otters are listed on schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- To intentionally kill, injure or take an otter.
- To possess or control any live or dead specimens.
- To intentionally or recklessly damage, destroy or obstruct access to any structure, feature or place of shelter in use by otters.
- To intentionally or recklessly disturb an otter whilst it is in occupation of a feature or structure.
- To sell, possess or transport for the purpose of sale or publicly declare the desire to buy or sell otters.

Reptiles

All six native reptiles within Great Britain are legally protected, with the extent of protection varying dependent upon their rarity and conservation importance.

Those that receive full protection under the Wildlife and Countryside Act 1981 (as amended) are the rare sand lizard and smooth snake. These species also receive protection under the Conservation (Natural Habitats &c.) Regulations 1994 (also referred to as the Habitats Directive). This means that they are protected from deliberate disturbance, killing, injury or capture and the habitat in which they live is also fully protected against damage or destruction. Any activity involving disturbance or damage to habitats utilised by sand lizards or smooth snakes would require a licence issued by the Department of the Environment, Food and Rural Affairs (DEFRA) following consultation with the statutory nature conservation organisation (Natural England).

The remaining four reptile species are 'partially protected' under the Wildlife and Countryside Act 1981 (as amended), with these species being slow-worm, common lizard, grass snake and adder. This means that these species are protected against intentional killing, injuring and against sale, but their habitat is not protected. In planning terms this means that the presence of these species is a material consideration and there is a requirement to ensure that any reptile interest is safeguarded. If a proposed development is likely to have an impact on these reptiles, then the statutory nature conservation organisation must be notified, particularly if capture and translocation is being proposed. In some parts of the UK, sites that support common reptile species such as common lizards and slow-worms can qualify as County Wildlife Sites. Sites of this designation may receive protection in planning policy.

Water Voles

Water Voles are fully protected under the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- To intentionally kill, injure or take a water vole.
- To possess or control any live or dead specimens.
- To intentionally or recklessly damage, destroy or obstruct access to any structure, feature or place of shelter in use by water voles.
- To intentionally or recklessly disturb a water vole whilst it is in occupation of a feature or structure.
- To sell, possess or transport for the purpose of sale or publicly declare the desire to buy or sell water voles.

Non-native Floral Species

It is an offence under schedule 9 of the Wildlife and Countryside Act 1981 (as amended) to plant or otherwise cause non-native flora to grow in the wild. This includes the transportation of earth that has previously had non-native species growing and includes the spread of the species.

All stands of non-native floral species need to be disposed of safely at a licenced landfill site according to the Environmental Protection Act (Duty of Care) Regulations 1991.

Appendix G: Bats and Artificial Light

Artificial lighting is known to affect bat's roosting and foraging behaviour, with lighting resulting in a range of impacts that includes roost desertion (BCT, 2009), delayed emergence of roosting bats (Downs et al., 2003), increased activity of some bat species and decreased activity by others (Stone et al., 2012).

An experimental approach using LED units, demonstrated that relatively fast-flying bat species, including the common pipistrelle, showed no significant impacts as a result of new artificial lighting, even when lighting was set at relatively high levels close to 50 lux.

In contrast, slow flying bats such as the myotis bats (*Myotis* spp.) showed sharp reductions in presence, even at low light levels of 3.6 lux (Stone et al., 2012).

Current recommendations for all bat species specify that no bat roost should be directly illuminated.

Due to the impacts of lighting, mitigation and sensitive lighting design schemes are required for projects where bats are present. These should include bat friendly lighting plans that should aim to avoid lighting wherever possible. If this is not possible, then the minimisation of any lighting impacts is required by adopting the following measures:

➤ To introduce lighting curfews or use of PIR sensors.

Lighting curfews can be an effective way of avoiding impacts on bats. These curfews may involve either turning off lighting or dimming light units at specific times of the night, dimming units at key times of the year, providing the luminaire allows for this option via a control unit. Lighting to be triggered by PIR sensors can be expected to be illuminated only when required and for a low proportion of time.

➤ To consider no lighting solutions where possible.

Options such as white lining, good signage and LED cat's eyes should be considered as preferable. Reflective fittings may help make use of headlights to provide any necessary illumination in some areas.

➤ To use only high pressure sodium or warm white LED lamps where possible.

High pressure sodium and warm white LED lamps emit lower proportions of insect attracting UV light than mercury, metal halide lamps and white LED lighting. Generally, lamps should have a lower proportion of white or blue wavelengths, with a colour temperature <4200 kelvin recommended (BCT, 2014).

➤ To minimise the spread of light.

The light spread should be kept at or near horizontal to ensure that only the task area is lit. Flat cut-off lanterns or accessories should be used to shield or direct light to where it is required. Baffles, hoods, louvres and shields should be used where necessary to reduce light spill.

➤ To consider the height of the lighting column.

While downward facing bollard lighting is often preferable, it should be noted that a lower mounting height does not automatically reduce impacts to bats as bollard lighting can often be designed to provide up-lighting. Where bollard lighting is considered to be the most appropriate system, bollard spacing or unit density should be kept to a minimum and units should be fitted with the appropriate hoods/deflectors to reduce any up-lighting.

➤ To avoid reflective surfaces below lights.

The polarisation of light by shiny surfaces attracts insects increasing bat activity (BCT, 2012). Consequently, surface materials around lighting require consideration.

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