

Ecological Assessment: Former waste transfer site, Marlbrook, Leominster HR6 0PE

National Grid Reference 351080, 254125

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Client:
Onnu Limited

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1. SUMMARY

On 30 April 2024 an Ecological Assessment was carried out of a proposed development site known as 'Former waste transfer site', Marlbrook, Leominster HR6 0PE.

The Ecological Assessment comprised a Desk Study and an Extended UK Habitat Classification Survey.

Historical biodiversity records were purchased from the Herefordshire Biological Records Centre.

Dr. R. M. Jones, experienced field biologist, surveyor, Natural England licensed bat worker (Licence number 2015-11179-CLS-CLS) and Natural England licensed newt worker (Licence number 2016-19615-CLS-CLS) carried out the assessment/survey.

The Ecological Assessment was requested by Onnu Limited in anticipation of making a planning application for the development of the site.

1.1 Proposed Development

The development proposal is to construct a pyrolysis plant.

The plant will be constructed on previously development land. Proposed development plans include the retention of the existing (vehicle/pedestrian) access from the adjacent highway (at the west).

The development proposal does not require the removal of any tree or (section of) hedge.

Full details on the proposed development may be obtained from Onnu Limited.

1.2 Desk Study

There are five designated wildlife sites within 2km of Former waste transfer site.

There are records of [REDACTED], bat, bird, Dormouse, Grass snake, Great crested newt, Hedgehog, Noble Chafer Beetle, Otter, plants and Polecat within 2km of the proposed development site.

With the adoption of appropriate mitigation, compensation and enhancement measures; it is not considered that development of Former waste transfer site will adversely affect the conservation status of the nearby designated wildlife sites or protected species recorded in the locale.

1.3 Habitat

The Former waste transfer site is formed by a vacant commercial unit and part of an agricultural field. A small planted broadleaved woodland is present at the southeast of the commercial unit.

The proposed development site is of very low ecological value.

However:

- [REDACTED] may use the proposed development site for commuting and/or foraging.
- the proposed development site and land in the vicinity may be used by bats for commuting and/or foraging.
- Hedgehog may use the proposed development site for breeding/nesting, commuting and/or foraging.
- Reptile, such as Grass snake and Lizard may, occasionally, be present on the proposed development site.
- Vegetation on and bounding the proposed development site provides Small Breeding Bird nesting habitat.

1.4 Mitigation

Mitigation is recommended for:

- [REDACTED]
- Bat (external lighting)
- Hedgehog
- Reptile
- Small Breeding Bird

1.5 Biodiversity Compensation and Enhancement

Proposed development plans will need to include enhancement for wildlife.

2. INTRODUCTION

Star Ecology was commissioned by Onnu Limited to conduct an Ecological Assessment of a proposed development site known as 'Former waste transfer site', Marlbrook, Leominster HR6 0PE.

From this point forward the 'Former waste transfer site' proposed development site is referred to as 'The Site'.

Dr. R. M. Jones, experienced field biologist, surveyor, Natural England licensed bat worker (Licence number 2015-11179-CLS-CLS) and Natural England licensed newt worker (Licence number 2016-19615-CLS-CLS) carried out the assessment/survey.

The Ecological Assessment was requested in anticipation of making a planning application for the construction of a pyrolysis plant on The Site.

The Ecological Assessment comprised a Desk Study and an Extended UK Habitat Classification Survey.

2.1 Report Status

This report has been produced to inform proposed development plans and a proposed planning application.

The report includes recommendations for mitigation, compensation and enhancement.

2.2 Site Description

The Site is a 8040.4m² (0.80 hectare) parcel of land formed by part of an agricultural field (at the north) and an existing commercial unit (at the south), and is situated to the east of the sprawling rural hamlet of Newton.

The field appears to have been in continuous agricultural use, whereas the commercial unit has previously been used as a fuel storage compound. The commercial unit area is currently vacant.

The commercial unit and field are situated within an industrial and agricultural landscape and are immediately neighboured by:

- a (remnant) traditional fruit tree orchard at the north;
- part of the Leominster-to-Hereford double-track railway line (with narrow verges), and part of the A49 highway at the east;
- part of the B4361 ('Hereford Road') highway, agricultural land, (remnant) traditional fruit tree orchards and a recently (within ten years, or-so) planted fruit tree orchard, at the south and west.

Industrial land (a Chocolate factory) is situated to the southeast, and a large agricultural yard and building complex is situated to the west.

Otherwise, the surrounding landscape is comprised of agricultural and horticultural fields, small copses and woodlands.

The River Lugg flows roughly north-to-south approximately 380m east of The Site. 'Wig Wood', a mixed broadleaved tree species woodland is situated to the east of the River Lugg.

A mapped pond is situated approximately 80m southwest of The Site.

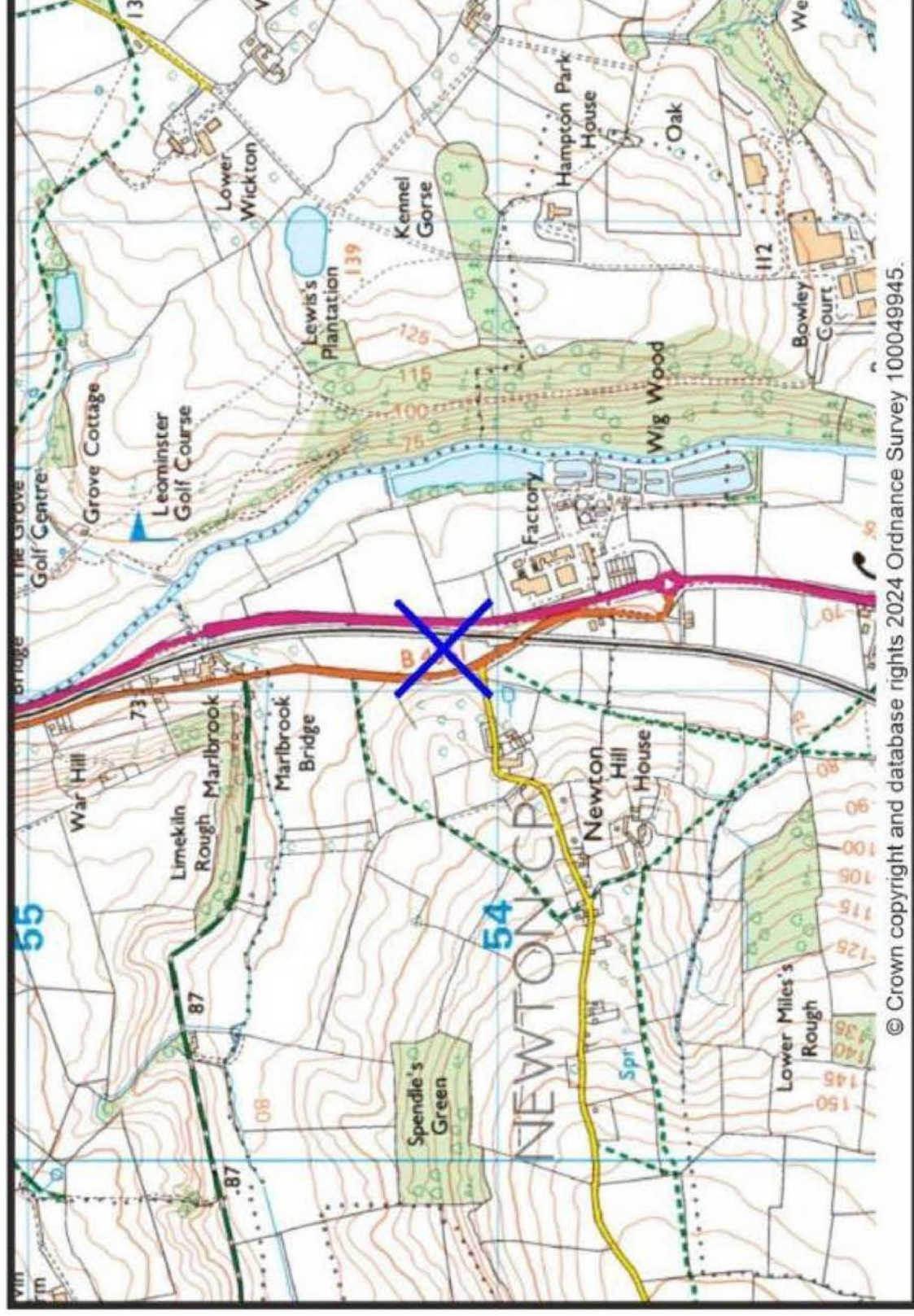
The landscape surrounding The Site is well connected by highways, the Leominster-to-Hereford railway line, and the River Lugg.

Map 1. Location of The Site.

Map 2. Location of The Site and surrounding habitat types.

Please note: the aerial photograph of habitat types is a 'screenshot' from Google Maps.

Map 1. Location of The Site (indicated by the blue cross).



Map 2. Location of The Site (indicated by the red cross) and surrounding habitat types.



2.3 Proposed Development

The development proposal is to construct a pyrolysis plant, with associated infrastructure, on The Site.

Whilst the total area of The Site is 0.80 hectare in size, this area includes land - such as an existing access and existing yard areas - that will not be materially affected by the proposed development.

The area of The Site that will be materially altered by the proposed development is approximately 0.45 hectare.

Proposed development plans include the retention of the existing (vehicle/pedestrian) access from the adjacent highway (at the west).

The development proposal does not require the removal of any tree or (section of) hedge.

Full details of the proposed development may be obtained from Onnu Limited.

3. DESK STUDY

3.1 Method

A data search was commissioned from Herefordshire Biological Records Centre (HBRC) for records of priority/protected species and Local Wildlife Sites within a 2km radius of The Site.

Designated wildlife sites within 2km of The Site were identified using the Multi-Agency Geographic Information Centre (MAGIC) (<http://magic.gov.uk>).

3.2 Results

HBRC provided records to Star Ecology on 29 April 2024.

A graphical representation of biodiversity records obtained from HBRC is contained in Appendix 1.

3.2.1 Designated Wildlife Sites

There are five designated wildlife sites within 2km of The Site, as follows:

- River Lugg Site of Special Scientific Interest is situated approximately 380m east.
- The Bury Farm Site of Special Scientific Interest is situated approximately 1.39km southwest.
- Dinmore Hill Woods Site of Special Scientific Interest is situated approximately 1.44km south.
- Hill Hole Dingle Site of Special Scientific Interest is situated approximately 1.5km east.
- Queenswood Local Nature Reserve is situated approximately 1.7km south.

The River Lugg is a tributary of the River Wye, also a Site of Special Scientific Interest. The River Lugg Site of Special Scientific Interest and the River Wye Site of Special Scientific Interest are within the River Wye Special Area of Conservation.

The Bury Farm Site of Special Scientific Interest was designated for its diverse unimproved grassland and assemblage of saproxylic invertebrates associated with veteran orchard trees.

The Dinmore Hill Woods Site of Special Scientific Interest was designated for its diverse broadleaved structure and associated flora.

Part of the Dinmore Hill Woods SSSI is within / forms part of the Queenswood Local Nature Reserve.

Hill Hole Dingle Site of Special Scientific Interest is an area of ancient natural woodland designated for its botanical diversity.

There are several (mapped) traditional orchards, a Natural England priority habitat, within 2km of The Site; the closest being situated to the immediate west of the B4361 ('Hereford Road') highway.

3.2.2 Badger

Legislation

Badgers (*Meles meles*) and their setts are protected by the Protection of Badgers Act 1992.

Under this legislation it is illegal to:

- wilfully kill, injure or take, or attempt to kill, injure or take, a Badger;
- cruelly ill-treating a Badger, digging for Badgers, using Badger tongs, using a firearm other than the type specified under the exceptions within the Act;
- interfere with a Badger sett by damaging, destroying, obstructing, causing a dog to enter a sett, disturbing an occupied sett - either by intent or by negligence;
- sell or offer for sale a live Badger, having possession or control of a live Badger;
- mark, attach a ring, tag, or other marking device to a Badger.

A Natural England Badger Disturbance Licence may be required for development works affecting Badgers.



3.2.3 Bat

Legislation

All bat species (*Rhinolophidae* and *Vespertilionidae*) are protected under the Wildlife and Countryside Act 1981, the Countryside and Rights of Way Act 2000 and the Conservation of Habitats and Species Regulations 2017 (as amended).

Under the Conservation of Habitats and Species Regulations 2017 legislation it is illegal to:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats. This includes in particular, disturbance in a way any such which is likely to (i) impair their ability to survive, breed or reproduce, or to rear or nurture their young; (ii) impair their ability to hibernate or migrate; or (iii) to affect significantly the local distribution or abundance of the species to which they belong;
- damage or destroy a breeding site or resting place of a bat;
- to be in possession or control, to keep, transport, to sell or exchange, or to offer for sale or exchange, any live or dead bat, or any part of, or anything derived from such a wild animal.

Under the Wildlife and Countryside Act 1981, it is illegal to:

- intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection.
- intentionally or recklessly obstruct access to any structure or place which a bat uses for shelter or protection.

A bat resting place may be a structure a bat uses for breeding, resting, shelter or protection. Resting place sites are protected whether or not bats are in occupation, as they may be re-used by bats.

All species of bat are priority species in the UK Biodiversity Action Plan (HM Government 1994 et seq.) and are Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

A European Protected Species (EPS) Development Licence from Natural England may be required for development works triggering Conservation of Habitats and Species Regulations 2017 (as amended) offences against bats.

Records

HBRC has 71 records of bat within 2km of The Site. These records are detailed in Table 1.

The earliest record was collected in year 2003; the most recent in year 2017.

Records have been collected from 17 different National Grid Reference (NGR) locations.

Two records have a 1m precision, nine records have a 10m precision and six records have a 100m precision.

There is no record of bat within 1km of The Site.

Table 1. Records of bat within 2km.

Bat species or Group	Scientific name	Number of records	Earliest year recorded	Most recent year recorded	Closest approximate position to The Site	Year of collection of the closest record
Daubenton's	Myotis daubentonii	1	2012	2012	1.36km south	2012
Lesser Horseshoe	Rhinolophus hipposideros	1	2008	2008	1.98km southeast	2008
Serotine	Eptesicus serotinus	1	2008	2008	1.10km northeast	2008
Natterer's	Myotis nattereri	2	2008	2008	1.63km southeast	2008
Unidentified Pipistrelle species	Pipistrellus sp.	2	2012	2017	1.63km southeast	2017
Brown Long-Eared	Plecotus auritus	3	2004	2017	1.25km northeast	2004
Noctule	Nyctalus noctula	3	2012	2017	1.10km northeast	2012
Unidentified Myotis species	Myotis sp.	5	2008	2017	1.33km south	2017
Unidentified bat	Chiroptera sp.	8	2003	2012	1.15km north	2003
Unidentified Long-eared species	Plecotus sp.	13	2008	2012	1.63km southeast	2012
Soprano Pipistrelle	Pipistrellus pygmaeus	14	2008	2017	1.63km southeast	2012
Common Pipistrelle	Pipistrellus pipistrellus	18	2008	2017	1.10km northeast	2012

3.2.4 Bird

HBRC has 197 records of 69 species of Bird within 2km of The Site.

The earliest record was collected in year 1990; the most recent in year 2013.

Records have been collected from 41 different (NGR) locations.

One record has a 1m precision, four records have a 10m precision, 30 records have a 100m precision, five records have a 1km precision and one record has a 4km precision.

Of the records of bird recorded within 2km of The Site, seven are fully protected under the Wildlife and Countryside Act 1981.

These species are:

- Barn Owl (*Tyto alba*)
- Brambling (*Fringilla montifringilla*)
- Fieldfare (*Turdus pilaris*)
- Hoopoe (*Upupa epops*)
- Kingfisher (*Alcedo atthis*)
- Red Kite (*Milvus milvus*)
- Redwing (*Turdus iliacus*)

3.2.5 Dormouse

Legislation

The Common or Hazel Dormouse (*Muscardinus avellanarius*) is protected under the Wildlife and Countryside Act 1981, the Countryside and Rights of Way Act 2000 and the Conservation of Habitats and Species Regulations 2017 (as amended).

Under the Conservation of Habitats and Species Regulations 2017 (as amended) legislation it is illegal to:

- deliberately capture, injure or kill a Dormouse;
- deliberately disturb Dormice. This includes in particular, disturbance in a way any such which is likely to (i) impair their ability to survive, breed or reproduce, or to rear or nurture their young; (ii) impair their ability to hibernate or migrate; or (iii) to affect significantly the local distribution or abundance of the species to which they belong
- damage or destroy a breeding site or resting place of a Dormouse;
- to be in possession or control, to keep, transport, to sell or exchange, or to offer for sale or exchange, any live or dead Dormouse, or any part of, or anything derived from such a wild animal.

Under the Wildlife and Countryside Act 1981, it is illegal to:

- intentionally or recklessly disturb a Dormouse while it is occupying a structure or place which it uses for shelter or protection.
- Intentionally or recklessly obstruct access to any structure or place which a Dormouse uses for shelter or protection.

A Dormouse resting place may be a structure a Dormouse uses for breeding, resting, shelter or protection. Resting place sites are protected whether or not Dormice are in occupation, as they may be re-used by Dormice.

All species of Dormouse are priority species in the UK Biodiversity Action Plan (HM Government 1994 et seq.) and are Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

A European Protected Species (EPS) Development Licence from Natural England may be required for development works triggering Conservation of Habitats and Species Regulations 2017 (as amended) offences against Dormice.

Record

HBRC has one record of Dormouse within 2km of The Site.

In year 1991 a record of Dormouse was collected approximately 1.85km east of The Site. The record has a 100m precision.

3.2.6 Grass snake

Legislation and policy

Grass snake (*Natrix helvetica*) have protection under the Wildlife and Countryside Act 1981. Their inclusion on Schedule 5 of the Wildlife and Countryside Act 1981 gives 'partial protection' (i.e. only parts of section 9 apply). In addition to restrictions with respect to trade (prohibition of sale and advertising for sale, etc.) they are also protected from intentional killing or injury.

Natural Environment and Rural Communities Act 2006 lists Grass snake as a species of principle importance.

Grass snake are listed as priority species under the UK Biodiversity Action Plan.

Records

HBRC has 17 records of Grass snake within 2km of The Site.

The earliest record was collected in year 2008; the most recent in year 2016.

Records have been collected from two different (NGR) locations and both have a 100m precision.

The closest record of Grass snake to The Site is approximately 450m southeast.

The Leominster-to-Hereford railway line, the A49 highway and a large commercial/industrial premises are situated between The Site and the location where the record of Grass snake was collected.

3.2.7 Great crested newt

Legislation

Great crested newt (*Triturus cristatus*) are protected under the Wildlife and Countryside Act 1981, the Countryside and Rights of Way Act 2000 and the Conservation of Habitats and Species Regulations 2017 (as amended).

Under the Conservation of Habitats and Species Regulations 2017 (as amended) legislation it is illegal to:

- deliberately capture, injure or kill a Great crested newt;
- deliberately disturb Great crested newt. This includes in particular, disturbance in a way any such which is likely to (i) impair their ability to survive, breed or reproduce, or to rear or nurture their young; (ii) impair their ability to hibernate or migrate; or (iii) to affect significantly the local distribution or abundance of the species to which they belong
- damage or destroy a breeding site or resting place of a Great crested newt;
- to be in possession or control, to keep, transport, to sell or exchange, or to offer for sale or exchange, any live or dead Great crested newt, or any part of, or anything derived from such a wild animal.

Under the Wildlife and Countryside Act 1981, it is illegal to:

- intentionally or recklessly disturb a Great crested newt while it is occupying a structure or place which it uses for shelter or protection.
- intentionally or recklessly obstruct access to any structure or place which a Great crested newt uses for shelter or protection.

A European Protected Species (EPS) Development Licence from Natural England will be required for development works triggering Conservation of Habitats and Species Regulations 2017 (as amended) offences against Great crested newt.

Records

HBRC has one record of Great crested newt within 2km of The Site.

In year 2005 a record of Great crested newt was collected approximately 1.34km southwest of The Site. The record has a 100m precision.

3.2.8 Hedgehog

Legislation and policy

(European) Hedgehog (*Erinaceus europaeus*) are:

- listed on Appendix III of the Bern Convention;
- protected from harm under Schedule 6 of the Wildlife and Countryside Act 1981;
- are Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006;
- listed as a Priority Species for conservation action under the United Kingdom Biodiversity Action Plan.

Records

HBRC has seven records of Hedgehog within 2km of The Site.

The earliest record was collected in year 2005; the most recent in year 2012.

Records have been collected from five different (NGR) locations and each has a 100m precision. Most of the records of Hedgehog are for corpses collected on nearby highways.

The closest record of Hedgehog to The Site is approximately 1.01km south.

3.2.9 Noble Chafer Beetle

Protection

The Noble Chafer Beetle (*Gnorimus nobilis*) is a known specialist of old orchards, is classified as 'vulnerable' in the Red Data Book of Insects and is a United Kingdom Biodiversity Action Plan species.

Records

HBRC has three records, each collected in year 2004, of Noble Chafer Beetle within 2km of The Site. Records have been collected from two different (NGR) locations; one with a 10m precision and one with a 1km precision.

3.2.10 Otter

Legislation

Otter (*Lutra lutra*) are protected under the Wildlife and Countryside Act 1981, the Countryside and Rights of Way Act 2000 and the Conservation of Habitats and Species Regulations 2017 (as amended).

Under the Conservation of Habitats and Species Regulations 2017 (as amended) legislation it is illegal to:

- deliberately capture, injure or kill an Otter;
- deliberately disturb Otter. This includes in particular, disturbance in a way any such which is likely to (i) impair their ability to survive, breed or reproduce, or to rear or nurture their young; (ii) impair their ability to hibernate or migrate; or (iii) to affect significantly the local distribution or abundance of the species to which they belong;
- damage or destroy a breeding site or resting place of an Otter;

- to be in possession or control, to keep, transport, to sell or exchange, or to offer for sale or exchange, any live or dead Otter, or any part of, or anything derived from such a wild animal.

Under the Wildlife and Countryside Act 1981, it is illegal to:

- intentionally or recklessly disturb an Otter while it is occupying a structure or place which it uses for shelter or protection.
- intentionally or recklessly obstruct access to any structure or place which an Otter uses for shelter or protection.

A European Protected Species (EPS) Development Licence from Natural England will be required for development works triggering Conservation of Habitats and Species Regulations 2017 (as amended) offences against Otter.

Records

HBRC has 11 records of Otter within 2km of The Site.

The earliest record was collected in year 1993; the most recent in year 2012.

Records have been collected from six different (NGR) locations; each with a 100m precision.

The closest record of Otter to The Site is approximately 1km north.

3.2.11 Plants

HBRC has 21 records of 11 species of plants within 2km of The Site.

The earliest record was collected in year 1977; the most recent in year 2004.

Records have been collected from 12 different (NGR) locations; five with a 100m precision, five with a 1km precision and two with a 4km precision.

3.2.12 Polecat

Legislation and policy

(European) Polecat (*Mustela putorius*) are:

- protected from harm under Schedule 6 of the Wildlife and Countryside Act 1981.
- protected from trapping or capture under Schedule 4 of the Conservation of Habitats and Species Regulations 2017.
- are Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.
- listed as a Priority Species for conservation action under the United Kingdom Biodiversity Action Plan.

Record

HBRC has five records of Polecat within 2km of The Site.

The earliest record was collected in year 1991; the most recent in year 2014.

Records have been collected from five different (NGR) locations; each with a 100m precision.

The closest record of Polecat to The Site was recorded approximately 1km south.

3.3 Conclusions

There are five designated wildlife sites and several mapped traditional orchards within 2km of The Site.

It is not considered that there are records of wildlife directly on The Site. However; records indicate that there may be protected species, such as [REDACTED] bat, Grass snake and Hedgehog, on and/or within the vicinity of The Site.

Development of The Site will need to be carried out in a manner that will not negatively impact the status of protected fauna and flora within the vicinity of The Site.

4. EXTENDED UK HABITAT CLASSIFICATION SURVEY

An Extended UK Habitat Classification Survey (UKHab Limited, 2023) of The Site was carried out on 30 April 2024.

The Extended UK Habitat Classification Survey was carried out by Dr. R. M. Jones, experienced field biologist and surveyor.

4.1 Survey Objectives

- a) To determine if The Site contains flora of significant ecological value.
- b) To determine if The Site contains fauna of significant value and/or Protected Species.

4.2 Method

To fulfil the brief of undertaking an ecological assessment of The Site an Extended UK Habitat Classification Survey was conducted (Butcher et al., 2020). This is a recently devised technique for classifying and mapping habitats. The aim is to provide a record of habitats that are likely to be ecologically important.

Where appropriate, the extent of each habitat type was mapped, and details of relative plant species abundance within homogenous areas were recorded. If appropriate, species abundance was measured on the DAFOR scale (Dominant, Abundant, Frequent, Occasional and Rare).

In order to allow efficient reporting of the boundaries on or immediately adjacent to The Site; where appropriate boundaries (such as hedges, fences and walls) were recorded and described individually.

In order to allow efficient reporting of trees on or immediately adjacent to The Site; where appropriate individual trees were recorded and described individually.

During the Extended UK Habitat Classification Survey the presence, or potential presence, of protected species, such as [REDACTED] and reptiles, was recorded on The Site.

Surveyor accessible land within approximately 50m of The Site was also surveyed. Incidental records of birds present on The Site were made throughout the survey.

Where appropriate, Target Note descriptions were recorded for features of nature conservation importance and/or extra-ordinary features of The Site. These include areas of valued vegetation and places that might support notable animal species.

4.3 Limitations

No surveyor access was available to neighbouring or nearby land under separate ownership.

Considering the thoroughness of survey, the habitat/s on and adjacent to The Site and the scale and nature of the proposed development - the impact of the above constraint on the results of the survey is negligible.

4.4 Results

4.4.1 Climate Conditions

The survey was carried out in dry and bright conditions with little or no breeze.

4.4.2 Habitat types

Appendix 2 contains an Extended UK Habitat Classification Survey Map.
Appendix 3 contains a photographic record of The Site.

4.4.2.1 The Site

The Site is formed by three distinct habitat areas:

- an area of (rank) modified grass at the northeast of the central area.
- developed land at the south and northwest of the central area.
- buildings.

The area of (rank) modified grassland (g4) (at the northeast of the central area) is formed of common grasses and weeds that appear to have grown on previously disturbed ground. The vegetation is sparse in places and Broad-leaved dock (*Rumex obtusifolius*), Cow parsley (*Anthriscus sylvestris*) and Hemlock (*Conium maculatum*) are abundant within the east boundary. Some Blackthorn (*Prunus spinosa*) saplings are present within the south west area.

The area of grassland appears to be maintained by mowing.

The developed land is formed by concrete and tarmac hard standing (developed land, sealed surface (u1b)), and compacted aggregate (artificial unvegetated - unsealed surface (u1c)).

Scattered common ephemeral / short perennial weeds are present including:

- Common selfheal (*Prunella vulgaris*)
- Creeping bent (*Agrostis stolonifera*)
- Cut-leaved cranesbill (*Geranium dissectum*)
- Field Forget-me-not (*myosotis arvensis*)
- Greater Plantain (*Plantago major*)
- Knotgrass (*Polygonum aviculare*)
- Ragwort (*Senecio jacobaea*)
- Thyme-leaved Speedwell (*Veronica serpyllifolia*)

Buildings (u1b5) include a small single-storey, open-fronted, store constructed of brick with a 'flat' roof formed by timber railway sleepers (or similar), a portacabin (or similar) and a shipping container.

The buildings are of no discernible wildlife importance.

4.4.2.2 Field

An agricultural field is situated to the immediate north of The Site.

The field area (at the north) is formed of modified grassland (g4) and appears to be managed by mowing. A livestock-proof fence is situated between the field and The Site.

4.4.2.3 Woodland

An area of woodland is present at the immediate southeast of The Site.

The woodland is formed of mainly broadleaved mixed species trees that have been planted in rows (other broadleaved woodland (w1g, 29)).

Trees within the woodland include:

- Cherry (*Prunus avium*)
- Common Ash (*Fraxinus excelsior*)
- Common Beech (*Fagus sylvatica*)
- Field Maple (*Acer campestre*)
- Rowan (*Sorbus aucuparia*)
- Silver birch (*Betula pendula*)
- Sycamore (*Acer pseudoplatanus*)
- Lime (*Tilia* sp(p).)

Shrubs, saplings and ground flora present within the woodland include:

- Broad-leaved Willowherb (*Epilobium montanum*)
- Dogwood (*Cornus sanguinea*)
- Elder (*Sambucus nigra*)
- Ground-ivy (*Glechoma hederacea*)
- Hawthorn (*Crataegus monogyna*)
- Herb robert (*Geranium robertianum*)
- Lords-and-Ladies (*Arum maculatum*)
- Primrose (*Primula* sp./var.)
- Spanish Bluebell (*Hyacinthoides x massartiana*)
- Wayfaring-tree (*Viburnum lantana*)
- Wood avens (*Geum urbanum*)
- Yellow archangel (*Lamium galeobdolon*)

A row of mature Western Red Cedar (*Thuja plicata*) grows within the east boundary of the woodland; against the west verge of the adjoining railway.

4.4.2.4 Boundaries

The east boundary of The Site, is formed by a concrete-post, plain-strand wire and Rabbit-wire fence (u1e, 612).

At the north part of the east boundary; an intact native hedge (h2a) is present along the east and west sides of the fence. The hedge continues north, forming part of the east boundary of the field area.

The hedge is dominated by Hawthorn and includes Blackthorn, Elder and Field Maple. The hedge appears to have been planted, is approximately 3 – 4m high and appears to be annually flailed on its west side, only.

Along the east side of the south part of the east boundary fence (i.e. between the fencing and the adjoining railway line) is dense Bramble (*Rubus fruticosus* agg.) scrub interspersed with some self-set Goat Willow (*Salix caprea*) and Hawthorn. Clematis (*Clematis vitalba*) is abundant.

The south boundary of The Site is formed by concrete-post, plain-strand wire and Rabbit-wire fencing (u1e, 612).

The west boundary is formed by livestock-proof (and security) fencing and planted Hawthorn dominated hedges (h2a). Common Beech (*Fagus sylvatica*) and Elder (*Sambucus nigra*) are rare. The hedges are approximately 2.5m high and appear to be annually trimmed.

4.4.3 Target Note

One Target Note ('Target Note 1') was recorded close to The Site.

A rookery, of roughly 12 (in-use) nests is present within the northeast area of the woodland that is situated to immediate southeast of The Site.

Proposed development plans will not require the removal of the rookery, or the trees on which it is supported.

4.4.4 Fauna

4.4.4.1 Badger

Legislation

Badgers (*Meles meles*) and their setts are protected by the Protection of Badgers Act 1992.

Under this legislation it is illegal to:

- wilfully kill, injure or take, or attempt to kill, injure or take, a Badger;
- cruelly ill-treating a Badger, digging for Badgers, using Badger tongs, using a firearm other than the type specified under the exceptions within the Act;
- interfere with a Badger sett by damaging, destroying, obstructing, causing a dog to enter a sett, disturbing an occupied sett - either by intent or by negligence;
- sell or offer for sale a live Badger, having possession or control of a live Badger;
- mark, attach a ring, tag, or other marking device to a Badger.

A Natural England Badger Disturbance Licence may be required for development works affecting Badgers.



4.4.4.2 Bat

Legislation

All bat species (*Rhinolophidae* and *Vespertilionidae*) are protected under the Wildlife and Countryside Act 1981, the Countryside and Rights of Way Act 2000 and the Conservation of Habitats and Species Regulations 2017 (as amended).

Under the Conservation of Habitats and Species Regulations 2017 legislation it is illegal to:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats. This includes in particular, disturbance in a way any such which is likely to (i) impair their ability to survive, breed or reproduce, or to rear or nurture their young; (ii) impair their ability to hibernate or migrate; or (iii) to affect significantly the local distribution or abundance of the species to which they belong;
- damage or destroy a breeding site or resting place of a bat;
- to be in possession or control, to keep, transport, to sell or exchange, or to offer for sale or exchange, any live or dead bat, or any part of, or anything derived from such a wild animal.

Under the Wildlife and Countryside Act 1981, it is illegal to:

- intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection.
- intentionally or recklessly obstruct access to any structure or place which a bat uses for shelter or protection.

A bat resting place may be a structure a bat uses for breeding, resting, shelter or protection. Resting place sites are protected whether or not bats are in occupation, as they may be re-used by bats.

All species of bat are priority species in the UK Biodiversity Action Plan (HM Government 1994 et seq.) and are Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

A European Protected Species (EPS) Development Licence from Natural England may be required for development works triggering Conservation of Habitats and Species Regulations 2017 (as amended) offences against bats.

Relevant factors

There are records of bat within 2km of The Site (Desk Study – Section 3).

There is no potential bat roost habitat on or bounding The Site.

However, The Site and its environs are likely to be used by bats for commuting and/or foraging.

4.4.4.3 Dormouse

Legislation

The Common or Hazel Dormouse (*Muscardinus avellanarius*) is protected under the Wildlife and Countryside Act 1981, the Countryside and Rights of Way Act 2000 and the Conservation of Habitats and Species Regulations 2017 (as amended).

Under the Conservation of Habitats and Species Regulations 2017 (as amended) legislation it is illegal to:

- deliberately capture, injure or kill a Dormouse;
- deliberately disturb Dormice. This includes in particular, disturbance in a way any such which is likely to (i) impair their ability to survive, breed or reproduce, or to rear or nurture their young; (ii) impair their ability to hibernate or migrate; or (iii) to affect significantly the local distribution or abundance of the species to which they belong
- damage or destroy a breeding site or resting place of a Dormouse;
- to be in possession or control, to keep, transport, to sell or exchange, or to offer for sale or exchange, any live or dead Dormouse, or any part of, or anything derived from such a wild animal.

Under the Wildlife and Countryside Act 1981, it is illegal to:

- intentionally or recklessly disturb a Dormouse while it is occupying a structure or place which it uses for shelter or protection.
- intentionally or recklessly obstruct access to any structure or place which a Dormouse uses for shelter or protection.

A Dormouse resting place may be a structure a Dormouse uses for breeding, resting, shelter or protection. Resting place sites are protected whether or not Dormice are in occupation, as they may be re-used by Dormice.

All species of Dormouse are priority species in the UK Biodiversity Action Plan (HM Government 1994 et seq.) and are Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

A European Protected Species (EPS) Development Licence from Natural England may be required for development works triggering Conservation of Habitats and Species Regulations 2017 (as amended) offences against Dormice.

Relevant factors

There is a record of Dormouse within 2km of The Site (Desk Study – Section 3). The Site and its boundaries do not provide habitat suitable for use by Dormouse. No evidence of Dormouse was found on The Site or along its boundaries. Considering the location and habitat of The Site and the surrounding habitat; it is not considered likely that Dormouse would reside on The Site or within its immediate environs.

4.4.4.4 Great crested newt

Legislation

Great crested newt (*Triturus cristatus*) are protected under the Wildlife and Countryside Act 1981, the Countryside and Rights of Way Act 2000 and the Conservation of Habitats and Species Regulations 2017 (as amended).

Under the Conservation of Habitats and Species Regulations 2017 (as amended) legislation it is illegal to:

- deliberately capture, injure or kill a Great crested newt;
- deliberately disturb Great crested newt. This includes in particular, disturbance in a way any such which is likely to (i) impair their ability to survive, breed or reproduce, or to rear or nurture their young; (ii) impair their ability to hibernate or migrate; or (iii) to affect significantly the local distribution or abundance of the species to which they belong
- damage or destroy a breeding site or resting place of a Great crested newt;
- to be in possession or control, to keep, transport, to sell or exchange, or to offer for sale or exchange, any live or dead Great crested newt, or any part of, or anything derived from such a wild animal.

Under the Wildlife and Countryside Act 1981, it is illegal to:

- intentionally or recklessly disturb a Great crested newt while it is occupying a structure or place which it uses for shelter or protection.
- intentionally or recklessly obstruct access to any structure or place which a Great crested newt uses for shelter or protection.

A European Protected Species (EPS) Development Licence from Natural England will be required for development works triggering Conservation of Habitats and Species Regulations 2017 (as amended) offences against Great crested newt.

Consideration

There is a record of Great crested newt within 2km of The Site. However, the record is more than 1.3km away.

There is one mapped pond within 250m of The Site.

A field pond is situated within a (mapped) traditional orchard at approximate NGR 350990, 253980. The pond is approximately 70m southwest of The Site.

However, the proposed development does not require the material alteration of the closest parts of The Site.

The closest part of The Site to be materially altered by the proposed development is approximately 130m northeast of the nearby field pond (that is situated at approximate NGR 350990, 253980).

The Site is 0.8 hectare in size. However, the area of The Site to be materially altered by the proposed development is approximately 0.45 hectare in size and is mostly situated furthest from the pond.

In this respect; the pond is too far from the proposed development area within The Site to be of significant concern.

Research undertaken by Natural England (previously English Nature) indicates the distances from breeding ponds within which Great crested newts are most likely to be encountered.

In relation to the appropriate use of Great crested newt mitigation measures, Natural England (English Nature, 2006) determines:

"The most comprehensive mitigation, in relation to avoiding disturbance, killing or injury is appropriate within 50m of a breeding pond. It will also almost always be necessary to actively capture newts 50-100m away. However, at distances greater than 100m, there should be careful consideration as to whether attempts to capture newts are necessary or the most effective option to avoid incidental mortality. At distances greater than 200-250m, capture operations will hardly ever be appropriate."

Natural England's valuation of habitats according to distance from Great crested newt breeding ponds has been adopted within the Natural England European Protected Species Licence application form for Great crested newt and within their 'rapid risk assessment' tool (contained in Form 'WML-A14-2.xls').

Should the nearby pond be used by Great crested newt for breeding purposes and assuming the proposed development is carried out in the absence of (Great crested newt) mitigation measures; the Natural England 'rapid risk assessment' tool shows the potential affect of the proposed development (i.e. approximately 0.45 hectare area of land situated approximately 130m northeast from the pond) on Great crested newt is:

'Green: Offence Highly Unlikely'.

Notional offence probability score 0.1.

Considering the habitat of The Site and the scale and nature of the proposed development; Great crested newt do not impose a constraint on the proposed development.

4.4.4.5 Hedgehog

Legislation and policy

(European) Hedgehog (*Erinaceus europaeus*) are:

- listed on Appendix III of the Bern Convention;
- protected from harm under Schedule 6 of the Wildlife and Countryside Act 1981;
- are Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006;
- listed as a Priority Species for conservation action under the United Kingdom Biodiversity Action Plan.

Relevant factors

There are records of Hedgehog within 2km of The Site (Desk Study – Section 3).

The area of woodland at the southeast of The Site and other adjoining habitats may be used by Hedgehog for breeding/nesting.

In addition, Hedgehog may use The Site and its environs for commuting and/or foraging purposes.

4.4.4.6 Noble Chafer Beetle

Protection

The Noble Chafer Beetle (*Gnorimus nobilis*) is classified as 'vulnerable' in the Red Data Book of Insects and is a United Kingdom Biodiversity Action Plan species. The Noble Chafer Beetle relies on the habitat/s of old orchards; residing within trees with rot holes, cracks and (bark) crevices.

Consideration

There is no Noble Chafer Beetle habitat on, bounding or in the immediate vicinity of The Site.

Noble Chafer Beetle do not impose a constraint on the proposed development.

4.4.4.7 Otter

Legalisation

Otter (*Lutra lutra*) are protected under the Wildlife and Countryside Act 1981, the Countryside and Rights of Way Act 2000 and the Conservation of Habitats and Species Regulations 2017 (as amended).

Under the Conservation of Habitats and Species Regulations 2017 (as amended) legislation it is illegal to:

- deliberately capture, injure or kill an Otter;
- deliberately disturb Otter. This includes in particular, disturbance in a way any such which is likely to (i) impair their ability to survive, breed or reproduce, or to rear or nurture their young; (ii) impair their ability to hibernate or migrate; or (iii) to affect significantly the local distribution or abundance of the species to which they belong;
- damage or destroy a breeding site or resting place of an Otter;
- to be in possession or control, to keep, transport, to sell or exchange, or to offer for sale or exchange, any live or dead Otter, or any part of, or anything derived from such a wild animal.

Under the Wildlife and Countryside Act 1981, it is illegal to:

- intentionally or recklessly disturb a Otter while it is occupying a structure or place which it uses for shelter or protection.
- intentionally or recklessly obstruct access to any structure or place which an Otter uses for shelter or protection.

A European Protected Species (EPS) Development Licence from Natural England will be required for development works triggering Conservation of Habitats and Species Regulations 2017 (as amended) offences against Otter.

Consideration

There are records of Otter within 2km of The Site, however, the closest record is approximately 1km away (Desk Study – Section 3).

The Site does not provide habitat suitable for Otter to reside within and no evidence of Otter was found on The Site or within its immediate environs.

There is no potential Otter habitat within the immediate environs of The Site.

Otter do not impose a constraint on the proposed development.

4.4.4.8 Polecat

Legislation and policy

(European) Polecat (*Mustela putorius*) are:

- protected from harm under Schedule 6 of the Wildlife and Countryside Act 1981;
- protected from trapping or capture under Schedule 6 of the Conservation of Habitats and Species Regulations 2017;
- are Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006;
- listed as a Priority Species for conservation action under the United Kingdom Biodiversity Action Plan.

Relevant factors

There are records of Polecat within 2km of The Site (Desk Study – Section 3). The Site does not provide habitat suitable for Polecat to reside within and no evidence of Polecat was found on The Site or within its immediate environs. Polecat do not impose a constraint on the proposed development.

4.4.4.9 Reptile

Legislation

Four reptile species, Adder (*Vipera berus*), Grass snake (*Natrix natrix*), Slow-worm (*Anguis fragilis*) and Viviparous (or Common) Lizard (*Zootoca vivipara*), have protection under the Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way Act 2000.

Their inclusion on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) gives 'partial protection' (i.e. only parts of section 9 apply). In addition to restrictions with respect to trade (prohibition of sale and advertising for sale, etc.) they are also protected from intentional killing or injury.

Natural Environment and Rural Communities Act 2006 lists all reptile species as a species of principle importance.

Reptiles are listed as priority species under the UK Biodiversity Action Plan.

Relevant factors

There are records of Grass snake within 2km of The Site (Desk Study – Section 3). Whilst it is doubtful that the proposed development of The Site would have a negative impact on the conservation status of the Grass snake recorded nearby; the presence of Grass snake, or other reptile (such as Lizard) on The Site cannot be discounted.

The Site is too small to be of significant value to reptile. However, reptile may occasionally be present on The Site and nearby habitat.

4.4.4.10 Small Breeding Birds

Legislation

Nesting birds are protected by the Wildlife and Countryside Act 1981.

Under the Wildlife and Countryside Act 1981, all birds are protected while breeding.

It is an offence, with certain exceptions to:

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- intentionally take or destroy the egg of any wild bird.

Consideration

Trees and boundary hedges provide Small Breeding Bird nesting habitat. The grassland habitat on The Site appears to be currently maintained by mowing and is unlikely to be used by ground-nesting bird species.

4.4.4.11 Water vole

Legislation

Water vole (*Arvicola amphibius*) are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000).

Under this legislation, it is illegal to:

- intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection;
- intentionally or recklessly disturb Water voles whilst occupying a structure or place used for that purpose;
- intentionally kill, injure or take Water voles;
- possess or control live or dead Water voles or derivatives;
- sell Water voles or offer or expose for sale or transport for sale;
- publish or cause to be published any advertisement which conveys the buying or selling of Water voles.

A Natural England Licence may be required for development works affecting Water vole.

Consideration

There is no record of Water vole within 2km of The Site.

The Site does not provide Water vole habitat and there is no potential Water vole habitat within its environs.

Water vole do not impose a constraint on the proposed development.


4.4.4.12 Other fauna

No evidence of other notable fauna was found.

4.5 Conclusion

The flora of The Site has a very low/negligible ecological value.

However:

- 
- The Site and its boundaries may be used by bats for commuting and/or foraging purposes.
- Hedgehog may breed/nest within The Site and elsewhere in the vicinity.
- Hedgehog may traverse and/or forage on The Site.
- reptile, such as Grass snake and Lizard, may, occasionally, be present on The Site.
- vegetation on and bounding The Site provides Small Breeding Bird nesting habitat.

5. ECOLOGICAL ASSESSMENT CONCLUSIONS

5.1 Desk Study (Section 3)

There are five designated wildlife sites within 2km of The Site; four Sites of Special Scientific Interest and one Local Nature Reserve.

Considering the scale and nature of the proposed development; with the adoption of mitigation, it is not considered that development of The Site will adversely affect the ecological status of the designated wildlife sites.

It is not thought that there are records of protected flora or fauna directly on The Site. However; there are records of [REDACTED] bat, bird, Dormouse, Grass snake, Great crested newt, Hedgehog, Noble Chafer Beetle, Otter, plants and Polecat within 2km of The Site.

Considering the habitat of The Site and the nature and scale of the proposed development; with the adoption of appropriate mitigation measures; it is not envisaged that the proposed development would negatively affect the conservation status of protected fauna or flora recorded within its vicinity.



Bat:

There are records of bat within 2km of The Site.

It is not envisaged that development of The Site would negatively affect the conservation status of the bat (species) identified within the Desk Study.

The Site, its boundaries and adjoining land may be used by bats for commuting and/or foraging purposes.

Mitigation for bat is contained in Section 6.2.

Bird:

There are records of birds within 2km of The Site.

Vegetation bounding and in the vicinity of The Site offers nesting opportunity for Small Breeding Birds.

Mitigation for Small Breeding Birds is contained in Section 6.3.

Dormouse:

There is a record of Dormouse within 2km of The Site.

It is not envisaged that development of The Site would negatively affect the conservation status of Dormouse identified within the Desk Study.

Grass snake:

There are records of Grass snake within 2km of The Site.

It is possible that Grass snake (and other species of reptile) may, occasionally, be present on The Site.

Mitigation for reptile is contained in Appendix 6.4.

Great crested newt:

There is a record of Great crested newt within 2km of The Site.

It is not envisaged that development of The Site would negatively affect the conservation status of Great crested newt identified within the Desk Study.

Hedgehog:

There are records of Hedgehog within 2km of The Site.

The Site may be used by Hedgehog for breeding/nesting, commuting and/or foraging purposes.

Mitigation for Hedgehog is contained in Section 6.5.

Noble Chafer Beetle:

There are records of Noble Chafer Beetle within 2km of The Site.

It is not envisaged that development of The Site would negatively affect the conservation status of Noble Chafer Beetle identified within the Desk Study.

Otter:

There are records of Otter within 2km of The Site; however, the closest record is approximately 1km away.

It is not envisaged that development of The Site would negatively affect the conservation status of Otter identified within the Desk Study.

Plants:

There are records of plants within 2km of The Site.

It is not envisaged that development of The Site would negatively affect the conservation status of the plants identified within the Desk Study.

Polecat:

There is a record of Polecat within 2km of The Site.

It is not envisaged that development of The Site would negatively affect the conservation status of Polecat identified within the Desk Study.

5.2 Extended UK Habitat Classification Survey (Section 4)

5.2.1 Habitat value

The flora of The Site has a low ecological value.

5.2.2 Fauna

The following fauna has been recorded on The Site, or may, occasionally, be present on The Site:

- 

- The Site, its boundaries and land in the vicinity may be used by bats for commuting and/or foraging. It is recommended that a bat-sensitive external lighting scheme be designed.

Mitigation for bats is contained in Section 6.2.

- The Site may be used by Hedgehog for breeding/nesting, commuting and/or foraging purposes. Should the proposed development be carried out mitigation for Hedgehog should be adhered to.

Mitigation for Hedgehog is contained in Section 6.5.

- The Site may be used by reptile (such as Grass snake and Lizard). It is a legal offence to kill or injure reptiles. Considering the scale and habitat of The Site and the nature of the proposed development it is not considered

necessary for a(nother) reptile survey to be carried out to inform the proposed development.

However, should the proposed development be carried out mitigation for reptile should be adhered to - to assuage any possible negative impact of the development on reptile.

Mitigation for reptile is contained in Section 6.4.

- Vegetation on and bounding The Site provides bird nesting habitat. Proposed development plans do not require the removal of potential bird nesting habitat. However, should this change and the removal of trees and/or (sections of) hedge be required; mitigation for Small Breeding Birds should be adhered to. Mitigation for Small Breeding Birds is contained in Section 6.3.

5.3 Future ecological value of The Site

The proposed development should include the retention, protection and enhancement of boundary hedges and trees.

The ecological value of The Site post-development may be enhanced by:

- the installation of purpose-made bird nesting features;
- the installation of purpose-made bat roosting features;
- the installation of purpose-made Hedgehog nesting features;
- sympathetic design for Hedgehog;
- the installation of purpose-made Hedgehog nesting features; and,
- the planting of hedges and/or the planting of trees.

6. MITIGATION

6.1 Badger

6.1.1 Legislation

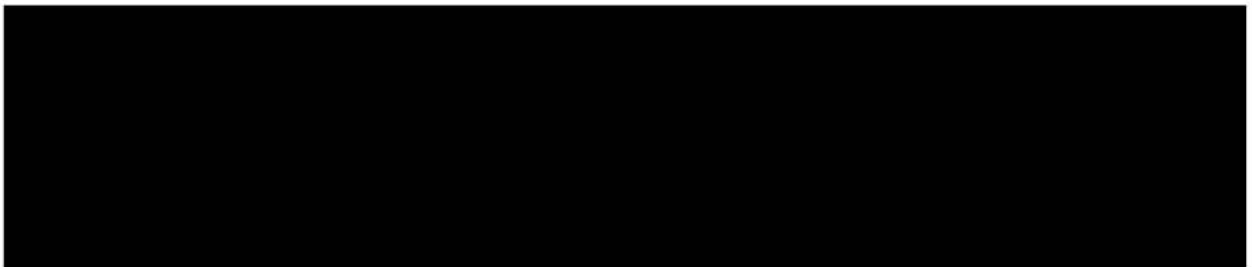
Badgers (*Meles meles*) and their setts are protected by the Protection of Badgers Act 1992.

Under this legislation it is illegal to:

- wilfully kill, injure or take, or attempt to kill, injure or take, a Badger;
- cruelly ill-treating a Badger, digging for Badgers, using Badger tongs, using a firearm other than the type specified under the exceptions within the Act;
- interfere with a Badger sett by damaging, destroying, obstructing, causing a dog to enter a sett, disturbing an occupied sett - either by intent or by negligence;
- sell or offer for sale a live Badger, having possession or control of a live Badger;
- mark, attach a ring, tag, or other marking device to a Badger.

A Natural England Badger Disturbance Licence may be required for development works affecting Badgers.

6.1.2 Mitigation



- 3) Excavated footings, post-holes, pipe trenches etc. will need to be filled on the same day as they are opened. Should the time between excavation and filling of foundations or trenches need to be extended, due to unforeseen circumstances, it will be necessary to prevent any chance of [REDACTED] becoming trapped in excavations.

This may be achieved by covering the excavations with ply-board sheeting or similar, ensuring a good seal between the bottom edge of the board and firm ground substrate.

Should it not be possible to cover all excavations, wooden boards should be placed extending from the bottom of excavations to the surrounding surface.

Should [REDACTED] become trapped in excavations, these 'ramps' may potentially allow [REDACTED] a method of escaping on their own accord.

Prior to works re-commencing excavations should be inspected for the presence of [REDACTED]

- 4) As a precaution, in case a [REDACTED] falls victim to site conditions, the site management should hold the contact details of a suitably experienced [REDACTED] worker. Site personnel should not attempt to remove or recover a trapped or injured [REDACTED]
- 5) Should [REDACTED] or a suspicion of their presence, be found, work must immediately cease and the site management must be contacted.

6.2 Bat – external lighting

In order to avoid any unnecessary disturbance to bats in the future, any external lighting to be installed should:

- use Light emitting diodes (LED) luminaries
- have a warm white spectrum <2700° Kelvin (degrees colour temperature)
- have peak wavelengths higher than 550nm
- be set on motion-sensors
- use short duration (e.g. one minute) timers
- not be in the vicinity of, or shine towards, bat roost openings
- not shine towards (the) roof structure(s)
- not be in the vicinity of, or shine towards, boundary vegetation

6.3 Small Breeding Bird

6.3.1 Legislation

Nesting birds are protected by the Wildlife and Countryside Act 1981.

Under the Wildlife and Countryside Act 1981, all birds are protected while breeding.

It is an offence, with certain exceptions to:

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- intentionally take or destroy the egg of any wild bird.

6.3.2 Mitigation

Vegetation clearance may only be carried out when no nesting birds are present i.e. between 1 October and 1 March.

Should it be required that vegetation clearance takes place within the bird breeding season, a survey should be carried out by a suitably qualified ecologist to ascertain whether breeding birds are present or not; should no breeding birds be present, it may be possible for vegetation clearance work to commence.

6.4 Reptile

6.4.1 Legislation and policy

Four reptile species, Adder (*Vipera berus*), Grass snake (*Natrix helvetica*), Slow-worm (*Anguis fragilis*) and Viviparous (or Common) Lizard (*Zootoca vivipara*), have protection under the Wildlife and Countryside Act 1981.

Their inclusion on Schedule 5 of the Wildlife and Countryside Act 1981 gives 'partial protection' (i.e. only parts of section 9 apply). In addition to restrictions with respect to trade (prohibition of sale and advertising for sale, etc.) they are also protected from intentional killing or injury.

Natural Environment and Rural Communities Act 2006 lists all reptile species as a species of principle importance.

Reptiles are listed as priority species under the UK Biodiversity Action Plan.

6.4.2 Mitigation

Adoption of the mitigation measures is *precautionary* but may avoid the killing or injury of reptile that may traverse The Site or be attracted to it during the construction phase. (E.g. animals may seek refuge or shelter within spoil heaps or building materials).

A. Grass and vegetation clearance

- A.1 Should the sward height of grass and Bramble vegetation on The Site be above 100mm at the time that development work is to commence; action will be required to negate any likelihood of reptile being present on The Site:
- Immediately prior to development works commencing: The Site will be walked and inspected for the presence of reptile;
 - Should (a) reptile(s) be found, it may be necessary for the proposed development-work schedule to be reassessed and, if necessary, Natural England be consulted;
 - Should no reptiles be found, central areas of The Site will need to be cut/strimmed to a height of no less than 100mm:
 - Cutting/strimming will start within the central areas of The Site and progress towards the southeast boundary;
 - All cut vegetation will need to be removed from The Site by hand.
- A.2 Where appropriate, the grassland habitat on The Site should be kept to a minimum sward height (ideally less than 50mm) for the duration of the development.

B. Destructive searches for reptile – during site clearance work

- B.1 Between 1 April and 1 November; existing mounds of waste materials (and similar) will carefully and systematically dismantled by hand.
- B.1 Any reptile found will be captured by hand and placed within a covered receptacle (such as a 15 litre lidded bucket) before being transported to and released within other suitable reptile habitat within the vicinity of The Site. Captured reptile will be released within the receptor site within 45 minutes from the time of capture.

C. Searches for reptile – following site clearance work

- C.1 Following the clearance of The Site and prior to the commencement of development work; between 1 April and 1 November, active searches will be carried out within The Site in attempts to find reptile that may be present.
- C.2 The Oxford Dictionary of English(5) defines a 'find' as "discover or perceive by chance or unexpectedly".

- C.3 A variety of methods will be used to aid the searches for reptile, including, but not limited to the:
- walking-over The Site whilst visually inspecting the area/s for reptile.
 - removing of materials under which reptile may potentially reside.
 - the movement of vegetation (such as grass and weeds) by hand, aiding the visual inspection for reptile.

- C.4 Any reptile found will be captured by hand and placed within a covered receptacle (such as a 15 litre lidded bucket) before being transported to and released within other suitable reptile habitat within the vicinity of The Site. Captured reptile will be released within the receptor site within 45 minutes from the time of capture.

D. Building material storage

- D.1 It is recommended that any materials stored on The Site during the construction phase are done so on pallets and at as great a distance as possible from trees and shrubs. This will:
- a) minimise the likelihood of reptile that may reside or traverse within the vicinity of the trees and shrubs (to be retained) from using building materials as a place for rest or shelter.
 - b) ensure the protection of the root systems of tree and shrub (to be retained).
- D.2 Where suitable, construction materials should be stored on pallets (or other structures such as 'skips') to keep them off the ground and potentially prevent reptiles and other wildlife from resting underneath them.
- D.3 Pallets and other stored materials should not be kept on bare ground and in the same place for more than 3-4 weeks to prevent them from creating potentially suitable resting places for reptiles and other wildlife.
- D.4 If possible building materials should be stored within (a) secure compound(s), such as 'skip(s)'.
- D.5 Where appropriate, the areas immediately surrounding (the) building material storage area(s) should be kept clear of debris and/or vegetation, and (where appropriate) grassland sward height will be kept to a minimum.

E. Excavations

- E.1 Excavated footings, post-holes, pipe trenches etc. will be filled on the same day as they are opened.
- E.2 Should the time between excavation and filling of foundations or trenches need to be extended, due to unforeseen circumstances, it will be necessary to prevent any chance of reptiles, or other wildlife, becoming trapped in excavations.
- a) This may be achieved by covering the excavations with ply-board sheeting or similar, ensuring a good seal between the bottom edge of the board and firm ground substrate.
 - b) Should it not be possible to cover all excavations, wooden boards should be placed extending from the bottom of excavations to the surrounding surface. Should reptiles (or amphibians or small mammals) become trapped in excavations, these 'ramps' may potentially allow reptiles, amphibians and small mammals a method of escaping on their own accord.
- E.3 Prior to works re-commencing excavations will be inspected for the presence of reptiles or other wildlife.

F. Arisings and/or waste materials

- F.1 (Waste) excavated stone and soil (and any other arisings) will be removed from The Site on the same day as their creation.
- F.2 (Soil) arisings that are to remain on The Site, perhaps for landscaping for example, will either need to be placed in (a) secure compound(s) (such as (a) skip(s)) and returned to site when required, or placed immediately on The Site where they are required post-development. Should the latter be required, soils will need to be compacted and dressed to the required finished level on the same day (or as soon after as possible) as they were excavated.
- F.3 Waste materials, such as builders rubble, generated within the development process should be stored within purpose-made refuge containers (such as 'skips') and or (a) secure compound(s).
- F.4 Where appropriate, the areas immediately surrounding the storage areas of (soil) arisings and/or waste materials will be kept clear of debris and/or vegetation, and (where appropriate) grassland sward height will be kept to a minimum.

6.5 Hedgehog

6.5.1 Legislation and Protection

(European) Hedgehog (*Erinaceus europaeus*) are:

- listed on Appendix III of the Bern Convention;
- protected from harm under Schedule 6 of the Wildlife and Countryside Act 1981;
- are Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006;
- listed as a Priority Species for conservation action under the United Kingdom Biodiversity Action Plan.

6.5.2 Mitigation - Clearance of vegetation, piles of debris *et cetera*

The contact details and availability of Hedgehog welfare and protection service in the locale should be obtained prior to the commencement of clearance work.

Hedgehog nests may be constructed in and around areas of overgrown/scrub vegetation, under brash piles and/or rubble piles *et cetera*.

Hedgehogs are particularly vulnerable to disturbance between May and October when litters of hoglets are born and during the winter months when they may be hibernating.

Where Hedgehog are known to be present on or within the vicinity of the development site, or there is risk of them being present on the development site: the removal of vegetation, piles of debris *et cetera* should be carried out between March and October (i.e. when Hedgehog are active).

To decrease the risk of disturbing Hedgehogs that may reside within vegetation, piles of debris *et cetera*, wherever possible the material to be removed should be (carefully) inspected by hand for the presence of Hedgehog.

Where no Hedgehog are found:

- clearance work may commence with care and caution and site operatives should maintain vigilance for Hedgehog.
- Should Hedgehog be inadvertently found, work should immediately cease and the instructions below followed.

Where Hedgehog are found:

- between 1st November and 1st March:
 - hibernating Hedgehog should be left undisturbed until they naturally awaken and vacate the vegetation, piles of debris *et cetera*. (Development delays will be inevitable until Hedgehog vacate on their own accord).
- between 1st March and 1st November:
 - should non-breeding Hedgehog be found; the animal(s) may be carefully removed out of (imminent) harm's way and moved to another suitable place of rest and shelter.
 - should a breeding nest (with sow and hoglets) be found, and *not* disturbed; the nest and Hedgehogs within it should be left for a period of approximately 28 days, after which the juvenile Hedgehogs should become independent and the nest should be vacant.
 - should a breeding nest (with sow and hoglets) be found and, inadvertently, disturbed: there is a possibility that the sow may abandon the nest risking the survival of the hoglets. Should this be case, professional guidance should be immediately sought to protect the welfare of the Hedgehog and their long-term survival.

6.5.3 Mitigation – Excavations and ground-works

Excavated footings, post-holes, pipe trenches etc. will need to be filled on the same day as they are opened.

Should the time between excavation and filling of foundations or trenches need to be extended, due to unforeseen circumstances, it will be necessary to prevent any chance of Hedgehog, or other wildlife, becoming trapped in excavations.

This may be achieved by:

Covers:

Covering the excavations with ply-board sheeting or similar, ensuring a good seal between the bottom edge of the board and firm ground substrate.

Ramps:

Should it not be possible to cover all excavations, wooden boards (or similar) will be placed extending from the bottom of excavations to the surrounding surface.

Should Hedgehog, or small mammals, become trapped in excavations, these 'ramps' may potentially allow Hedgehog, and small mammals, a method of escaping on their own accord.

Each morning; excavations should be inspected for the presence of Hedgehog.

Should Hedgehog be present, they should be removed from the excavation and, if they are healthy, released within suitable habitat, away from the development site.

7. RELEVANT PUBLICATIONS

Bat Conservation Trust and Institution of Lighting Professionals (2023). Guidance Note 08/23 Bats and Artificial Lighting at Night.

Collins, J. (ed.) (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust.

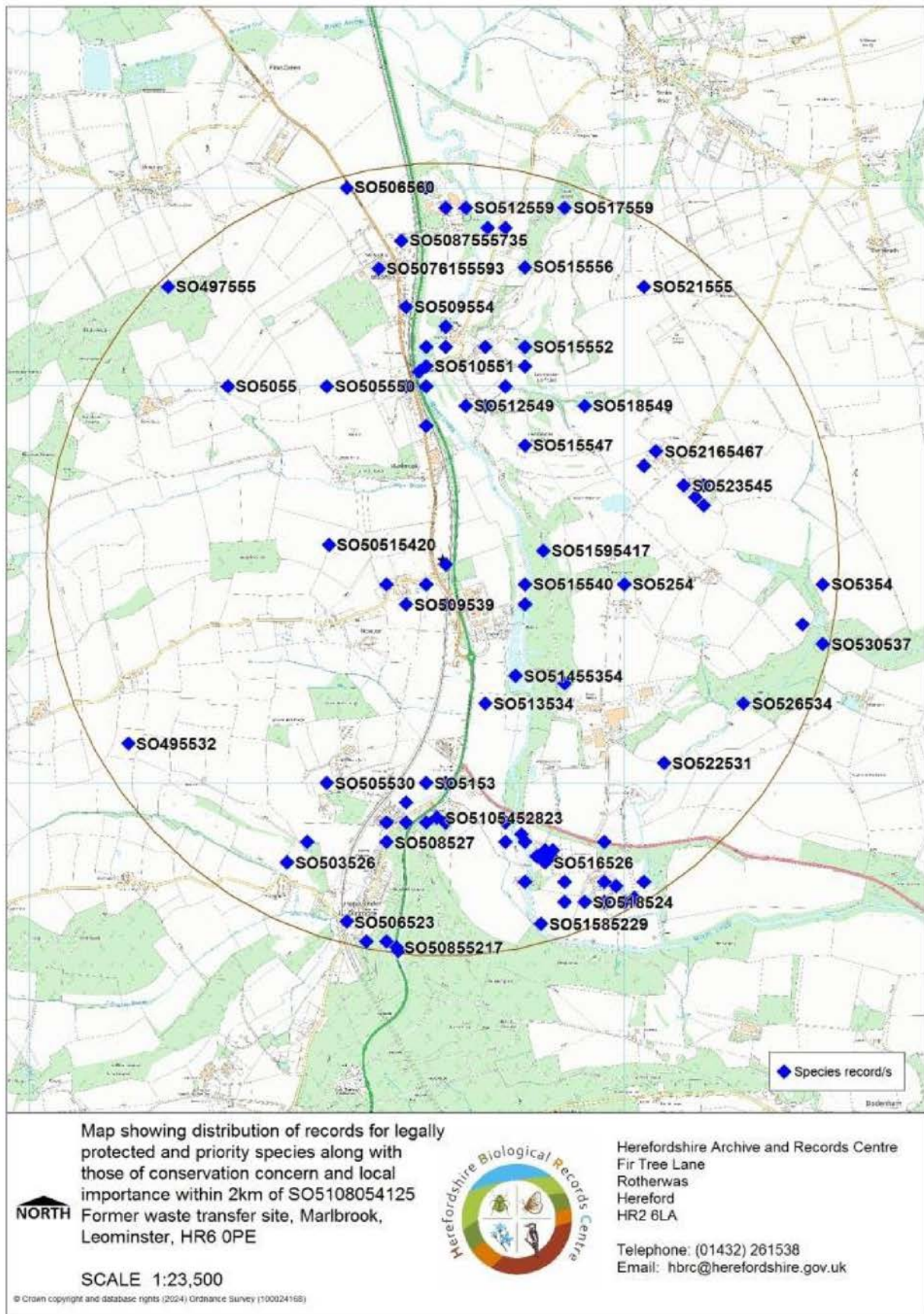
English Nature, 2006. An Assessment of the Efficiency of Capture Techniques and the value of different habitats for the great crested newt *Triturus cristatus*, Report Number 576

Multi-Agency Geographic Information Centre (MAGIC) (<http://magic.gov.uk>).

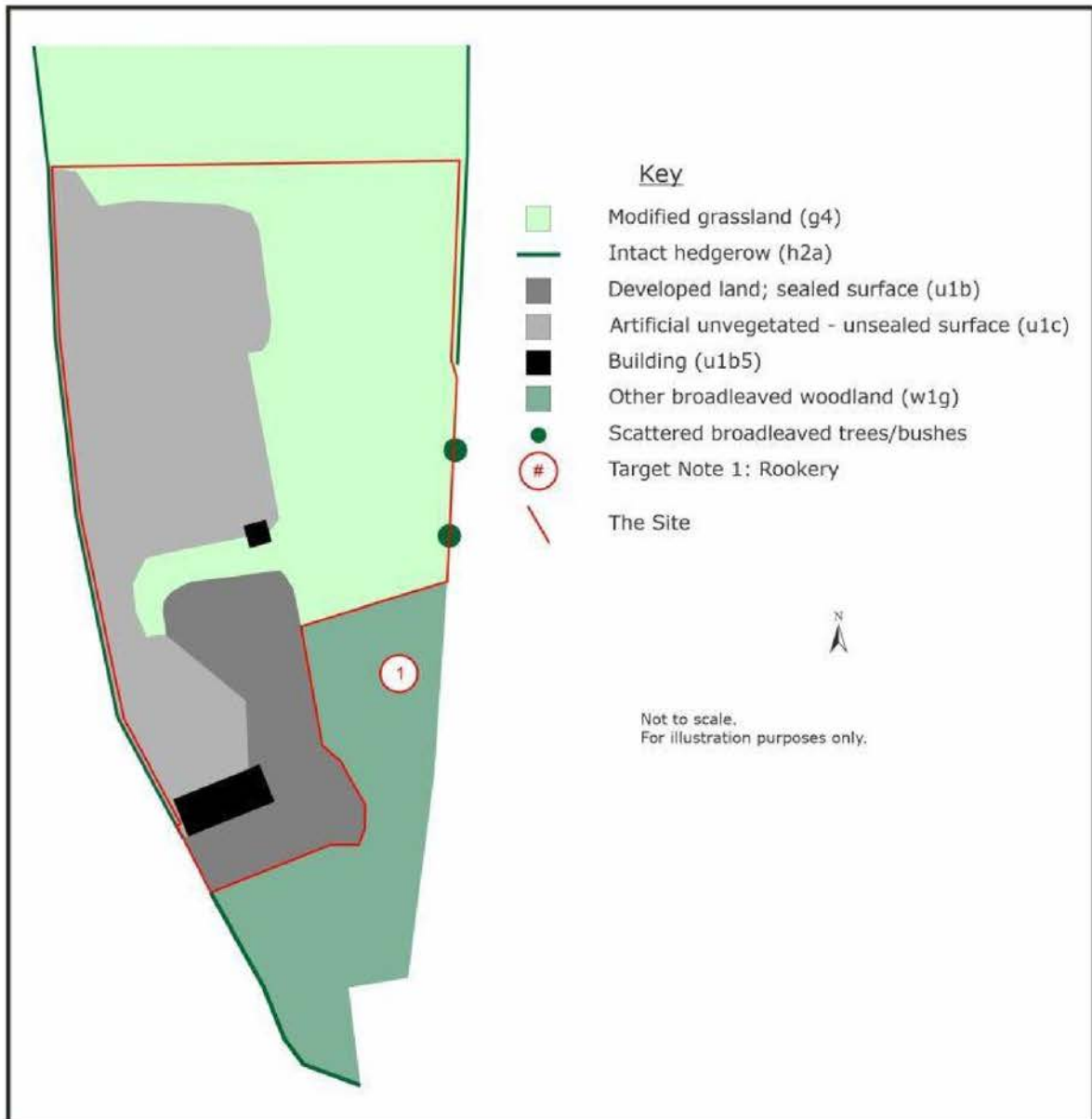
Natural England (2020). European Protected Species Method Statement document. Form WML-A14-2.xls.

UKHab Limited (2023). UK Habitat Classification Version 2.0 (at <https://www.ukhab.org>).

APPENDIX 1. Herefordshire Biological Records Centre Record Search



APPENDIX 2. Extended UK Habitat Map



APPENDIX 3. Photographs of The Site



Photograph 1.
View of the north (right) and central (left) areas.
Looking from above.



Photograph 2.
View of the south (left) and central (right) areas.
Looking from above.



Photograph 3.

View of part of the area of grassland within the central area.
Looking southwest from northeast.



Photograph 4.

View of the southwest area.
Looking south from north.



Photograph 5.
View of the northwest area.
Looking north from south.



Photograph 6.
View of the central area.
Looking north from south.



Photograph 7.

View of the north (right) and east (left) elevations and roof structure of the building within the central area.
Looking southwest from northeast.



Photograph 8.

View of buildings (portacabin and shipping container) within the southwest area.
Looking southwest from northeast.