

Ecological Assessment: Land off A483, Llandrindod Wells LD1 5BJ

National Grid Reference 306400, 262670

Site Visits: 11 February 2022 – 10 November 2023
Report Submitted: 16 January 2024

Ref: BPA/3010/22.1



Report Status: Pre-planning

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Dr R. M. Jones.

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1. SUMMARY

Between 11 February 2022 and 10 November 2023 an Ecological Assessment was carried out of a proposed development site known as 'Land off A483', Llandrindod Wells LD1 5BJ.

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

Historical biodiversity records were purchased from the Biodiversity Information Service for Powys & Newtown Beacons National Park.

Dr. R. M. Jones, experienced field biologist, surveyor, Natural Resources Wales licensed bat worker (Licence number S092019-1) and Natural Resources Wales licensed newt worker (Licence number S092053/1) carried out the assessment/survey.

The Ecological Assessment was requested by BP&A Architectural Design, on behalf of J. A. Morgan Construction Limited, to inform the proposed development and in anticipation of making a planning application.

1.1 Proposed Development

The development proposal is for the construction of dwellings and associated infrastructure.

The proposed development will require the removal of a hedge that forms part of the northwest boundary and the removal of a mature Oak tree that grows within the northwest boundary.

Full details of the proposed development may be obtained from BP&A Architectural Design.

1.2 Desk Study

There are five designated wildlife sites within 1km; four Sites of Special Scientific Interest and one Special Area of Conservation. The closest sites are approximately 400m away.

Considering the nature and scale of the proposed development; the development proposal is not likely to damage the features for which the Sites of Special Scientific Interest and Special Area of Conservation were notified.

There are records of Badger, bat, bird, Great crested newt, Hedgehog, Otter, plants and reptile within 1km, or thereabouts, of the proposed development site.

With the exception of Great crested newt: with the adoption of mitigation measures, it is not considered that the development will adversely affect the conservation status of protected species recorded within the locality.

There are records of Great crested newt in close proximity to Land off A483 and a survey for Great crested newt is required to inform the proposed development.

1.3 Habitat

The proposed development site is a small agricultural grassland field that is used for the making of baled forage and for the grazing of Sheep.

Part of the northwest boundary is formed by a native species-rich hedge and a mature Oak tree also grows within the northwest boundary.

Overall, the proposed development site is of very low / negligible wildlife value.

However:

- the Oak tree growing within the northwest boundary may provide bat roost habitat
- the northwest boundary hedge and the Oak tree provide Small Breeding Bird nesting habitat.
- the proposed development site and land in the vicinity are likely to be used by commuting and/or foraging bats.
- on occasion, Badger, Grass snake, Hedgehog, Otter and/or Polecat may be present on the proposed development site.

1.4 Bat

A mature Oak tree grows adjacent to the proposed development site. The development proposal requires the removal of the tree.

The tree was identified as potentially providing bat roost habitat and was subject to two Dusk Bat Emergence Surveys. No evidence of bat roosting was found.

Currently:

- no further bat survey work of the tree is required to inform the proposed development.
- it is not considered necessary for a European Protected Species Licence for bats to be issued by Natural Resources Wales to allow the law removal of the tree.

However, should the tree not be removed by July 2025 and the tree continues to provide bat roost potential; the tree will need to be re-surveyed for bats prior to its removal.

1.5 Mitigation

Mitigation is recommended for:

- Badger
- Bat (external lighting)
- Hedgehog
- Otter
- Polecat
- Reptile
- Small Breeding Bird

1.6 Recommended Future Survey

1.6.1 Great crested newt

There are records of Great crested newt in a pond in the vicinity of the Land off A483 proposed development site.

At the least, a survey for the (continued) presence of Great crested newt in the pond is required to inform the proposed development.

Should Great crested newt (continue to) be present; a population class size estimate survey should be required.

1.6.2 Bat

A mature Oak tree that grows within the northwest boundary of the proposed development site has been identified as potentially providing bat roost opportunity. The proposed development requires the removal of the tree.

Whilst Dusk Bat Emergence Surveys did not record the presence of (a) bat roost(s) within the tree; it is possible that bats may roost within the tree in the future.

Should the tree continue to exist and to provide bat roost potential after July 2025, (and the removal of the tree is still required); the tree will need to be subject to further Dusk Bat Emergence Surveys.

1.7 Biodiversity Enhancement

The following enhancement measures for wildlife are recommended:

- the planting of native species hedges.
- the planting of native species trees.
- the installation of purpose-made bat roosting features.
- the installation of purpose-made bird nesting features.
- the installation of purpose-made insect boxes.
- the installation of purpose-made Hedgehog habitat.

2. INTRODUCTION

Star Ecology was commissioned by BP&A Architectural Design, on behalf of J. A. Morgan Construction Limited, to conduct an Ecological Assessment of a proposed development site known as 'Land off A483', Llandrindod Wells LD1 5BJ.

From this point forward the proposed development site 'Land off A483' is referred to as 'The Site'.

Dr. R. M. Jones, experienced field biologist, surveyor, Natural Resources Wales licensed bat worker (Licence number S088947/1) and Natural Resources Wales licensed newt worker (Licence number S088980/1) carried out the assessment/survey.

The Ecological Assessment was requested in anticipation of making a planning application for dwellings and associated infrastructure on The Site.

The Ecological Assessment comprised a Desk Study, an Extended UK Habitat Classification Survey and a Bat 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 and biodiversity enhancement. Following the finalisation of development plans; the report may be upgraded/revised to confirm mitigation measures and/or to confirm (if possible) the likely post-development biodiversity net gain.

2.2 Site Description

The Site is a roughly rectangular shaped agricultural field approximately 4600m² (0.46 hectare) in size.

The Site is immediately neighboured by:

- a pumping station and an electricity substation, and a small area of planted woodland at the northeast;
- an area of planted woodland and part of the A483 highway at the southeast;
- an area of planted woodland and part of the Ddole Road highway at the southwest; and,
- an area of planted woodlands, a residential road, domestic properties and a railway storage yard at the northwest.

The Heart of Wales Business Park is situated on the other (southeast) side of the A483 highway.

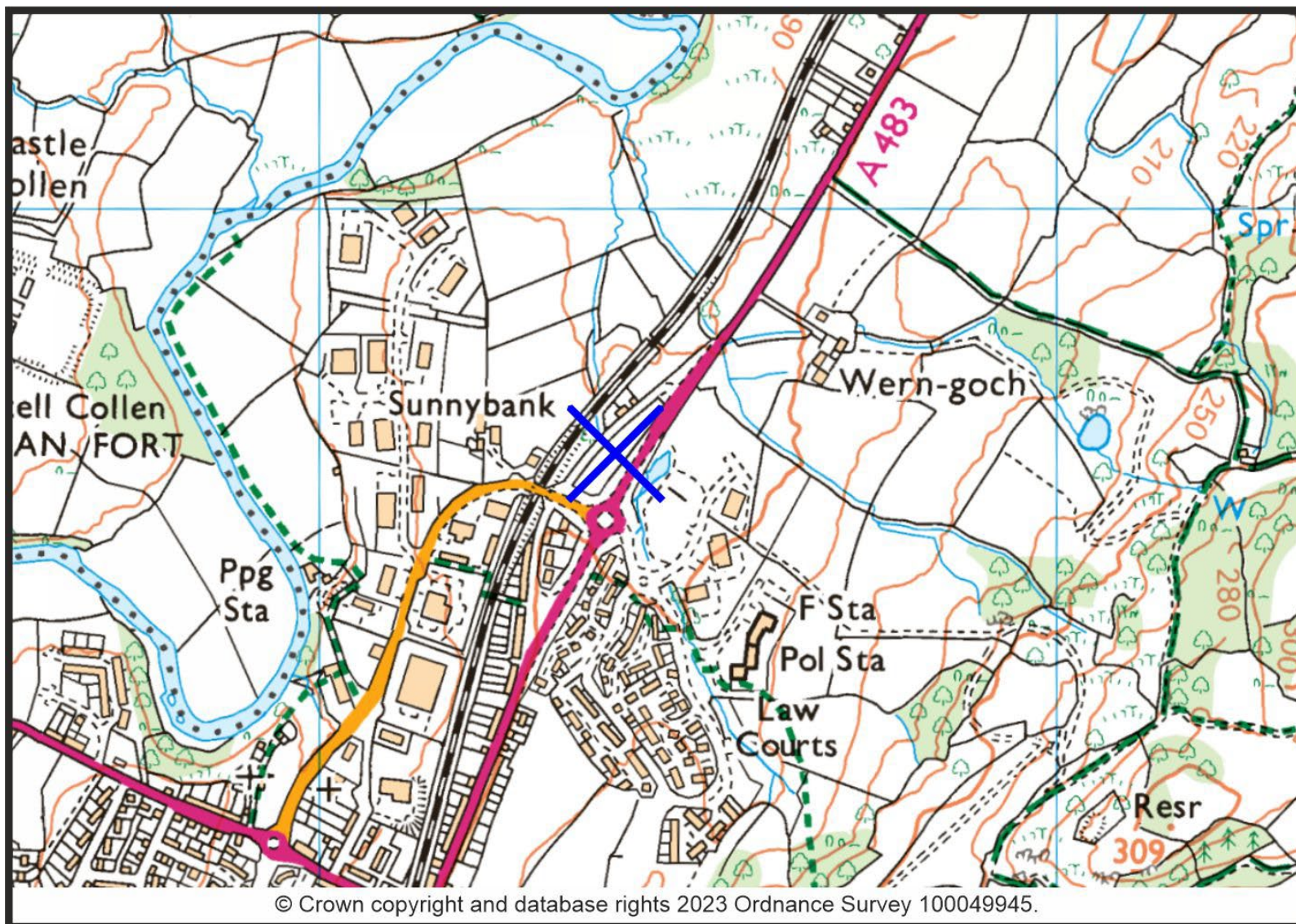
A pond (possibly a water attenuation feature) is situated within the Business Park, at the immediate southeast of the A483 highway.

The Llandrindod Wells -to- Penybont trainline is situated approximately 40m west.

Map 1. Location of The Site.

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

Map 1. Location of Land off A483 (indicated by the blue cross).



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



2.3 Proposed Development

The development proposal is for the construction of dwellings and associated infrastructure on The Site.

The proposed development will require the removal of section of hedge that forms part of the northwest boundary and the removal of a mature Oak tree that also grows adjacent to the northwest boundary.

The removal of the Oak tree is unfortunate, but it is, apparently, essential to allow the feasible development of The Site.

Full details of the proposed development may be obtained from BP&A Architectural Design.

3. DESK STUDY

3.1 Method

Data searches were commissioned from Biodiversity Information Service for Powys & Newtown Beacons National Park (BIS) for records of priority/protected species within a 1km, or thereabouts, radius of The Site.

Designated wildlife sites within 1km, or thereabouts, of The Site were identified using the Multi-Agency Geographic Information Centre (MAGIC) (<http://magic.gov.uk>) and information provided by BIS.

3.2 Results

BIS provided records to Star Ecology on 30 October 2023.

Records of priority/protected species that may have been recorded more than 1km from The Site may be included in the record search results due to a) the precision (or 'resolution') that the records have originally been collected and b) the mobile nature of the species.

All stated distances of priority/species records from The Site are approximate.

3.2.1 Designated Wildlife Sites

There are five designated wildlife sites within 1km, or thereabouts, of The Site:

- River Wye Special Area of Conservation
- River Ithon Site of Special Scientific Interest
- Crabtree Green Meadow Site of Special Scientific Interest
- Llanfawr Quarries, Llandrindod Wells Site of Special Scientific Interest
- Gweunydd Coch-y-dwst Site of Special Scientific Interest

River Ithon Site of Special Scientific Interest forms part of the River Wye Special Area of Conservation. The rivers (and their riparian habitats) were designated for their aquatic, Aquatic, botanical, geological and faunal importance. The closest section of the River Ithon flows roughly north-to-south approximately 400m west of The Site.

Crabtree Green Meadow Site of Special Scientific Interest is a 2.7 hectare field/meadow of botanical importance and is situated approximately 650m southwest of The Site.

Llanfawr Quarries, Llandrindod Wells Site of Special Scientific Interest is a 1.3 hectare series of disused quarries that are primarily of paleontological importance with some botanical interest. Situated approximately 730m southeast of The Site.

Gweunydd Coch-y-dwst Site of Special Scientific Interest is a 10.9 hectare area of unimproved grassland of botanical importance and is situated approximately 800m northwest.

Considering the nature and scale of the proposed development, the locations of the designated wildlife sites and the habitats between them and The Site; development of The Site is unlikely to damage the features for which the above sites were notified.

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 Resources Wales Badger Disturbance Licence may be required for development works affecting Badgers.

Records

BIS has 18 records of Badger within 1km, or thereabouts, of The Site.

The earliest record was collected in year 1986; the most recent in year 2021.

There are records of Badger within close proximity of The Site; however, these are for dead Badgers that have been found on nearby roads.

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.

Eight species of bat are listed as 'priority species' under Schedule 7 of the Environment (Wales) Act 2016.

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

Records

BIS has 31 records of bat within 1km, or thereabouts, of The Site.

The records are detailed in Table 1.

The earliest record was collected in year 1984; the most recent in year 2018.

Records have been collected from 18 different (NGR) locations; one with a 10m precision, 13 with a 100m precision and four with a 1km precision.

The closest records of bat to The Site are for Lesser horseshow and Natterer's bats, both collected in year 1992, approximately 200m south.

Table 1. Records of bat within 1km, or thereabouts.

Bat species or Group	Scientific name	Number of records	Earliest year recorded	Most recent year recorded	Closest approximate position to the Building	Year of collection of the closest record
Bat	<i>Chiroptera</i>	1	1993	1993	750m southwest	1993
Lesser horseshoe	<i>Rhinolophus hipposideros</i>	1	1992	1992	200m south	1992
Noctule	<i>Nyctalus noctula</i>	1	2009	2009	990m west	2009
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	1	2009	2009	990m west	2009
Natterer's	<i>Myotis nattereri</i>	3	1985	1992	200m south	1992
Brown long-eared	<i>Plecotus auritus</i>	4	1985	2018	250m southwest	1988
Whiskered Bat	<i>Myotis mystacinus</i>	4	1986	1988	300m south	1986
Unidentified Long-eared species	<i>Plecotus</i> sp.	5	1984	1986	800m northwest	1985
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	11	1985	2011	420m south	1986

3.2.4 Bird

BIS has 484 records of 78 species of bird within 1km, or thereabouts, of The Site. The earliest record was collected in year 1983; the most recent in year 2019.

Records have been collected from 44 different (NGR) locations; two with a 1m precision, one with a 10m precision, 32 with a 100m precision, seven with a 1km precision and two with a 4km precision.

Of the records of bird recorded within 1km, or thereabouts, of The Site, ten are fully protected under the Wildlife and Countryside Act 1981.

These species are:

- Barn Owl (*Tyto alba*)
- Bittern (*Botaurus stellaris*)
- Black Redstart (*Phoenicurus ochruros*)
- Black Tern (*Chlidonias niger*)
- Brambling (*Fringilla montifringilla*)
- Common Tern (*Sterna hirundo*)
- Hobby (*Falco subbuteo*)
- Kingfisher (*Alcedo atthis*)
- Osprey (*Pandion haliaetus*)
- Red Kite (*Milvus milvus*)

3.2.5 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 .

Under the Conservation of Habitats and Species Regulations 2017 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 Resources Wales will be required for development works triggering Conservation of Habitats and Species Regulations 2017 offences against Great crested newt.

Great crested newt are listed as 'priority species' within the Powys Biodiversity Action Plan.

Records

BIS has 12 records of Great crested newt within 1km, or so, of The Site. The earliest record was collected in year 2009; the most recent in year 2020. Records have been collected from four different (NGR) locations; two with a 1m precision and two with a 100m precision.

The closest record of Great crested newt is approximately 50m southeast of The Site. Apparently, in year 2013, 15 adult Great crested newt were found within the pond at the east of the A483, within the Heart of Wales Business Park. The nearest part of the pond to The Site is approximately 30m from the southeast boundary of The Site.

The other three records of Great crested newt were collected more than 500m away.

3.2.6 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 listed as a 'priority species' under Schedule 7 of the Environment (Wales) Act 2016.
- listed as 'vulnerable to extinction' on International Union for the Conservation of Nature's Red List for British Mammals.

Records

BIS has 25 records of Hedgehog within 1km, or thereabouts, of The Site. The earliest record was collected in year 1977; the most recent in year 2022. Records have been collected from 23 different (NGR) locations; 13 with a 1m precision, four with a 10m precision, four with a 100m precision and two with a 1km precision.

There are records of Hedgehog within the immediate vicinity of The Site; the most recent collected in year 2022.

3.2.7 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 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.

Otter are listed as a 'priority species' under Schedule 7 of the Environment (Wales) Act 2016.

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

Records

BIS has 11 records of Otter within 1km, or thereabouts, of The Site.

The earliest record was collected in year 1977; the most recent in year 2021.

Records have been collected from nine different (NGR) locations; six with a 100m precision and three with a 1km precision.

The closest record of Otter to The Site is for a dead Otter that was found on the A483 highway at the immediate southeast of The Site in year 2016.

3.2.8 Plants

BIS has 83 records of 26 species of plants within 1km, or thereabouts, of The Site.

The earliest record was collected in year 1889; the most recent in year 2023.

Records have been collected from 53 different (NGR) locations; four with a 10m precision, 42 with a 100m precision and seven with a 1km precision.

3.2.9 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 listed as a 'priority species' under Schedule 7 of the Environment (Wales) Act 2016.

Records

BIS has nine records of Polecat within 1km, or thereabouts, of The Site.

The earliest record was collected in year 1960; the most recent in year 2016.

Records have been collected from seven different (NGR) locations; one with a 10m precision; four with a 100m precision and two with a 1km precision.

The closest record of Polecat was collected in year 2007 along the A483 highway at the immediate southeast of The Site.

3.2.10 Reptile

Legislation

Four reptile species, Adder (*Vipera berus*), Grass snake (*Natrix helvetica*), Slow-worm (*Anguis fragilis*) and 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.

All reptile species are listed as 'priority species' under Schedule 7 of the Environment (Wales) Act 2016.

Records

BIS has three records of Lizard (*Zootoca vivipara*) within 1km, or thereabouts, of The Site.

The earliest record was collected in year 1996; the most recent in year 2010. Each record was collected from a different (NGR) location; each with a 100m precision. The closest record of Lizard to The Site is approximately 200m north and was collected in year 2010.

BIS has one record of Grass snake (*Natrix helvetica*) within 1km, or thereabouts, of The Site.

In year 1949, a record of Grass snake was recorded approximately 800m northwest of The Site. The record has a 1km precision.

BIS has eight records of Slow-worm (*Anguis fragilis*) within 1km, or thereabouts, of The Site.

The earliest record was collected in year 1998; the most recent in year 2015.

Records have been collected from eight different (NGR) locations; two with a 1m precision and six with a 100m precision.

The closest record of Slow-worm to The Site is approximately 100m north and was collected in year 2015.

3.3 Conclusions

There are five designated wildlife sites within 1km; four Sites of Special Scientific Interest and one Special Area of Conservation.

Considering the nature and scale of the proposed development; the development proposal is not likely to damage the features for which the designated wildlife sites were notified.

It is not considered that BIS holds records for wildlife directly on The Site. However, there are records of protected and priority species in the immediate vicinity.

Development of The Site will need to be carried out in a manner that will not negatively impact the status of protected fauna recorded in the locale.

4. EXTENDED UK HABITAT CLASSIFICATION SURVEY

An Extended UK Habitat Classification Survey (UKHab Limited, 2023) of The Site and its immediate environs was carried out on 11 February 2022 and 10 November 2023.

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.

Please note:

A separate and thorough Tree Survey and/or Arboricultural Assessment (such as a tree survey to BS5837:2012 "Trees in relation to design, demolition and construction. Recommendations") or similar was not carried out by Star Ecology.

During the Extended UK Habitat Classification Survey the presence, or potential presence, of protected species, such as Badger 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

It is not considered that there are any significant limitations to the survey.

4.4 Results

4.4.1 Climate Conditions

The surveys were carried out in dry and bright conditions with little or no breeze.

4.4.2 Habitat types

Appendix 1 contains an Extended UK Habitat Classification Survey Map.

Appendix 2 contains a photographic record of the survey.

The Site is formed by a small agricultural grassland field that is used for the production of baled forage and for the grazing of Sheep.

The grassland is formed of common agricultural species and is categorised as being 'neutral grassland' (g3).

Grasses present include Annual Meadow-grass (*Poa annua*), Cock's-foot (*Dactylis glomerata*), Common Bent (*Agrostis capillaris*), Meadow fescue (*Festuca pratensis*), Perennial Rye-grass (*Lolium perenne*), Timothy (*Phleum pratense*) and Yorkshire Fog (*Holcus lanatus*).

Soft rush (*Juncus effusus*) is common throughout. Bramble (*Rubus fruticosus* agg.) and Meadowsweet are common within the field margins, particularly within the (*Filipendula ulmaria*) northeast and southeast boundaries.

A security fence forms the northeast boundary (against the pumping station and an electricity substation).

The southeast boundary and the southwest boundary are formed by livestock-proof timber-post, timber-rail, pig-netting wire and barbed-wire fences (u1e, 612).

The northwest boundary is formed by a livestock-proof timber-post, pig-netting wire and barbed-wire fence (u1e, 612) and (access) gateway.

An intact species-rich native hedge (h2a5, 116) is present along the northeast section of the northwest boundary. The hedge is approximately 1.5m high and annually flailed.

There is evidence that the hedge has been historically layed/pleached.

The hedge is comprised of Blackthorn (*Prunus spinosa*), Common Ash (*Fraxinus excelsior*), Guelder-rose (*Viburnum opulus*), Hawthorn (*Crataegus monogyna*) and Hazel (*Corylus avellana*).

A ditch is present on the southeast side of the hedge.

On the dates of survey the ditch was dry and covered with vegetation.

A mature Oak (*Quercus* sp.) tree grows within the central-to-southwest area of the northwest boundary (fence). Common Nettle (*Urtica dioica*) grows at the base of the tree. The tree has been identified as potentially providing bat roost habitat and has been subject to a Bat Survey (see Section 4.4.3 and Section 5).

All matters considered; the habitat of The Site is of low very low / negligible wildlife value.

Planted deciduous trees grow at the immediate southeast, southwest and northwest of the southwest-end of The Site. The trees are of uniform age and appear to have

been planted as part of works to the local highway network - for (visual and/or noise) screening and/or for ornamental purposes. Tree species present include Cherry (*Prunus avium*), Common Ash, Field Maple (*Acer campestre*), Oak and Sycamore (*Acer pseudoplatanus*).

The proposed development does not require the removal of the trees.

4.4.3 Target Note

One Target Note was recorded.

A mature Oak tree stands at approximate NGR 306403, 262700, within the northwest boundary of The Site.

The tree was surveyed, from the ground, for its potential to be used by bats for roosting purposes. The tree was surveyed by unaided human visual perception and, where required, the aid of close-focusing (Zeiss 10x42) binoculars and/or torches, including a Fenix RC40 3800 lumen torch and a DeWalt DCL043 1000 lumen torch.

The tree is partially covered with mature and dense Ivy (*Hedera helix*) growth and there are two former limb-drop (or 'rip') tear wounds.

These features may be used by (crevice dwelling) bats for roosting.

The approximate location of the tree is denoted by Target Note 1 on the Extended UK Habitat Classification Survey Map contained in Appendix 1.

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 Resources Wales Badger Disturbance Licence may be required for development works affecting Badgers.

Relevant factors

There are records of Badger in the locale (Desk Study – Section 3).

No evidence of Badger was found on The Site or within surveyor accessible land within 50m of it.

However, considering the habitat of The Site, its location and surrounding landscape; Badger may, occasionally, use The Site for commuting and/or foraging.

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.

Eight species of bat are listed as 'priority species' under Schedule 7 of the Environment (Wales) Act 2016.

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

Relevant factors

There are records of bat within the locale (Desk Study – Section 3).

A mature Oak tree that grows within the northwest boundary has been identified as potentially providing bat roost habitat and is denoted as Target Note 1 (see Section 4.4.3).

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

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.

Under the Conservation of Habitats and Species Regulations 2017 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.

Dormouse are listed as 'priority species' under Schedule 7 of the Environment (Wales) Act 2016.

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

Relevant factors

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

The Site and its boundaries do not provide habitat suitable for use by Dormouse.

No evidence of Dormouse was found on The Site or within its environs.

Dormouse do not impose a constraint on the proposed development.

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 .

Under the Conservation of Habitats and Species Regulations 2017 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 Resources Wales will be required for development works triggering Conservation of Habitats and Species Regulations 2017 offences against Great crested newt.

Great crested newt are listed as 'priority species' within the Powys Biodiversity Action Plan.

Relevant factors

There are records of Great crested newt within 1km, or thereabouts, of The Site, including a record collected within the pond situated on the opposite side of the A483 highway, within the Heart of Wales Business Park (Desk Study – Section 3).

The pond is situated approximately 30m from The Site. Part of the A483 highway is situated between the pond and The Site. There does not appear to be direct habitat linkage (such as an (open) culvert, ditch or similar) between the pond and The Site.

It is possible that the A483 highway may act as a physical barrier to Great crested newt dispersal (should Great crested newt continue to be present within the pond). However, this can not be known for certain.

Due to the proximity of the pond to The Site; should the pond (continue to) be used by Great crested newt for breeding purposes; it is possible that Great crested newt may be present on The Site. The Site and its environs provide habitat suitable for Great crested newt to use during their terrestrial life-stage.

Should Great crested newt use The Site; the proposed development would undoubtedly trigger legal offences against Great crested newt.

At the least, a survey will need to be carried out to confirm the (continued) presence or absence of Great crested newt within the nearby pond.

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 listed as a 'priority species' under Schedule 7 of the Environment (Wales) Act 2016.
- listed as 'vulnerable to extinction' on International Union for the Conservation of Nature's Red List for British Mammals.

Relevant factors

There are records of Hedgehog in the locale (Desk Study – Section 3).

The Site does not provide Hedgehog breeding/nesting habitat.

However, there is habitat suitable for Hedgehog to use for breeding/nesting within the vicinity of The Site and Hedgehog may traverse and/or forage on The Site.

4.4.4.6 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.

Otter are listed as a 'priority species' under Schedule 7 of the Environment (Wales) Act 2016.

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

Consideration

There are records of Otter in the locale (Desk Study – Section 3).

The Site does not provide habitat suitable for Otter to reside within.

However, considering the habitat of The Site, its location and surrounding landscape; Otter may, occasionally, use The Site for commuting purposes.

4.4.4.7 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 listed as a 'priority species' under Schedule 7 of the Environment (Wales) Act 2016.

Relevant factors

There are records of Polecat in the locale (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.

However, considering the habitat of The Site, its location and surrounding landscape; Polecat may use The Site for commuting and/or foraging.

4.4.4.8 Reptile

Legislation

Four reptile species, Adder (*Vipera berus*), Grass snake (*Natrix natrix*), Slow-worm (*Anguis fragilis*) and 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.

All reptile species are listed as 'priority species' under Schedule 7 of the Environment (Wales) Act 2016.

Relevant factors

There are records of Grass snake, Lizard and Slow-worm in the locale (Desk Study – Section 3).

The Site does not provide habitat of high value to reptile.

However, considering the habitat of The Site and habitat in the locality, it is possible that Grass snake, Lizard and/or Slow-worm may, on occasion, be present on The Site.

4.4.4.9 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

The hedge and Oak tree that grow within the northwest boundary provide bird nesting habitat.

Considering the habitat and use of The Site, it is not considered likely that it would be used by ground-nesting bird species.

4.4.4.10 Water vole

Legislation

Water vole (*Arvicola amphibius*) are protected under the Wildlife and Countryside Act 1981.

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 Resources Wales Licence may be required for development works affecting Water vole.

Water vole are listed as a 'priority species' under Schedule 7 of the Environment (Wales) Act 2016.

Consideration

There is no record of Water vole within 1km, or thereabouts.

The Site does not provide Water vole habitat and there is no potential Water vole habitat in the environs.

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

4.4.4.11 Other fauna

No evidence of other notable fauna was found.

4.5 Conclusion

The habitat of The Site is of very low / negligible ecological value.

However:

- a mature Oak tree (denoted as Target Note 1) growing within the northwest boundary may provide bat roost habitat.
- Great crested newt may breed within the nearby pond and, as such, may be present on The Site.
- The Site and its environs are likely to be used by bats for commuting and foraging purposes.
- Badger, Hedgehog, Otter and Polecat may use The Site for commuting and/or foraging.
- Grass snake, Lizard and/or Slow-worm, may, on occasion, be present on The Site.
- the (northwest) boundary hedge and the Oak tree provide Small Breeding Bird nesting habitat.

5. Bat Survey

5.1 Introduction

A mature Oak tree that grows within the northwest boundary of The Site was identified as potentially providing bat roost habitat. See Section 4.4.3.

The approximate location of the tree is denoted by Target Note 1 on the Extended UK Habitat Classification Survey Map contained in Appendix 1.

The proposed development requires the removal of the tree. Therefore, the tree was subject to two Dusk Bat Emergence Surveys.

5.2 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.

Eight species of bat are listed as 'priority species' under Schedule 7 of the Environment (Wales) Act 2016.

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

5.3 Survey objectives

- a) To ascertain if the tree is used by bats for roosting.
- b) If so, to determine the number and species of bat that roosts within the tree.

5.4 Method

On 6 June 2023 and 13 July 2023, Dusk Bat Emergence Surveys were carried out on the tree.

The surveys were carried out by Dr. R. M. Jones with the assistance of Mr. A. Edwards, surveyor and recorder.

Immediately prior to the Dusk Bat Emergence Surveys; one Anabat SD1 bat echolocation detector was positioned to record bat activity at the immediate northeast of the tree and one Anabat SD1 bat echolocation detector was positioned to record bat activity at the immediate southwest of the tree.

The bat detectors were retrieved immediately following the surveys.

During the Dusk Bat Emergence Surveys:

- one surveyor was positioned at the northeast of the tree.
- one surveyor was positioned at the southwest of the tree.
- surveyors used a Magenta Bat5 heterodyne bat detector, an Elekon Batscanner automatic tuning heterodyne bat detector, an Anabat Walkabout bat detector and night vision binoculars, monoculars and scopes (Pulsar Accolade 2 LRF XP50 Pro Thermal Binocular (50Hz), Zeiss DTI 3/25 Thermal Monocular and Sytong HT-66 with infrared illuminator).
- the tree was carefully and continuously observed.
- surveyors kept in contact via private mobile radios.

5.4.1 Limitations of the Bat Survey

Considering the tree surveyed; it is not considered that there are any significant constraints on the survey.

Adequate visibility of the tree structure was obtained.

5.5 Results

5.5.1 Dusk Survey 1

Sunset for 6 June 2023 was noted as being 21:30hrs.

The survey was carried out between 21:15hrs and 23:00hrs

Weather conditions throughout the survey were fine and dry with a Beaufort wind scale of 0-2.

At the start of the survey, the air temperature was 17^o Celsius, the air humidity was 72% and cloud cover was 4 Oktas. At the end of the survey, the air temperature was 11^o Celsius and the air humidity was 84%.

No bat emerged from the tree and no bat activity (such as commuting or foraging) was observed or recorded in the immediate vicinity of the tree.

5.5.2 Dusk Survey 2

Sunset for 13 July 2023 was noted as being 21:31hrs.

The survey was carried out between 21:15hrs and 23:00hrs

Weather conditions throughout the survey were fine and dry with a Beaufort wind scale of 0-2.

At the start of the survey, the air temperature was 18° Celsius, the air humidity was 72% and cloud cover was 4 Oktas. At the end of the survey, the air temperature was 15° Celsius and the air humidity was 84%.

No bat emerged from the tree and no bat activity (such as commuting or foraging) was observed or recorded in the immediate vicinity of the tree.

5.6 Conclusion

Proposed development plans include the removal of the mature Oak tree (denoted as Target Note 1) that grows within the northwest boundary of The Site.

Two Dusk Bat Emergence Surveys were carried out to determine the likely presence or absence of bats within the tree.

No bats emerged from the tree and no bat activity was observed or record in the immediate vicinity of the tree.

The tree does not currently provide bat roost potential and no further bat survey of the tree is necessary to inform the proposed removal of the tree at present.

However, it is possible that bats may roost on/within the tree in the future and, should the tree not be removed within two years of the most recent date of survey (i.e. by July 2025); the tree will need to be re-surveyed.

6. ECOLOGICAL ASSESSMENT CONCLUSIONS

6.1 Desk Study (Section 3)

There are five designated wildlife sites within 1km; four Sites of Special Scientific Interest and one Special Area of Conservation.

Considering the nature and scale of the proposed development; the development proposal is not likely to damage the features for which the Sites of Special Scientific Interest and Special Area of Conservation were notified.

The local biodiversity record centre holds records of Badger, bat, bird, Great crested newt, Hedgehog, Otter, plants and reptile within 1km, or thereabouts, 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 in the vicinity of The Site.

Badger:

There are records of Badger within 1km, or thereabouts, of The Site
With the adoption of mitigation (see Section 6.2); it is not envisaged that development will negatively affect the conservation status of Badger identified within the Desk Study.

Bat:

There are records of bat within 1km, or thereabouts, 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.

Bird:

There are records of birds within 1km, or thereabouts, of The Site.
With the adoption of mitigation (see Section 6.2); it is not envisaged that the proposed development will negatively affect the conservation status of birds identified within the Desk Study.

Great crested newt:

There are records of Great crested newt within 1km, or thereabouts, of The Site, including records within a pond approximately 30m to the southeast.
Further survey is recommended to inform the proposed development to establish if Great crested newt remain present within the nearby pond, or not.
Should Great crested newt (continue to) be present within the pond, it is possible that they may be present on The Site and that they may be killed and/or injured by development work.
In addition, the proposed development may potentially remove Great crested newt terrestrial habitat.

Hedgehog:

There are records of Hedgehog within 1km, or thereabouts, of The Site.
With the adoption of mitigation (see Section 6.2); it is not envisaged that the proposed development will negatively affect the conservation status of Hedgehog identified within the Desk Study.

Otter:

There are records of Otter within 1km, or thereabouts, of The Site.
With the adoption of mitigation (see Section 6.2); it is not envisaged that the proposed development will negatively affect the conservation status of Otter identified within the Desk Study.

Plants:

There are records of plants within 1km, or thereabouts, 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 are records of Polecat within 1km, or thereabouts, of The Site.
With the adoption of mitigation (see Section 6.2); it is not envisaged that the proposed development will negatively affect the conservation status of Polecat identified within the Desk Study.

Reptile:

There are records of Common Grass snake, Lizard and Slow-worm within 1km, or thereabouts, of The Site.
With the adoption of mitigation (see Section 6.2); it is not envisaged that the proposed development will negatively affect the conservation status of reptile identified within the Desk Study.

6.2 Extended UK Habitat Classification Survey (Section 4)

6.2.1 Habitat value

The Site is formed by an agricultural grassland field.
Overall, the flora of The Site has a very low / negligible ecological value.

However, the removal of the hedge and tree that grow within part of the northwest boundary is unfortunate.
The hedge and tree are separate to other similar habitats in the environs and habitat linkage ('green infrastructure') will continue to be present in the vicinity of The Site post-development.

This being said, the loss of the section of hedge and the tree will need to be compensated for by the planting of native hedges and trees.
Should it not be possible for compensation to be provided on The Site; off-site provision of hedges and trees may need to be considered.

6.2.2 Fauna

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

- a tree (denoted as Target Note 1) growing within the northwest boundary potential provides bat roost habitat and has been subject to further survey. See Section 6.3.
- bats may use The Site, its boundaries and its environs for commuting and/or foraging. It is recommended that a bat-sensitive external lighting scheme be designed.
Mitigation for bats is contained in Section 7.1.
- Badger, Hedgehog, Otter and Polecat may traverse and/or forage on The Site. Should the proposed development be carried out mitigation for Badger, Hedgehog, Otter and Polecat be adhered to.
Mitigation for Badger, Hedgehog, Otter and Polecat is contained in Section 7.2.

- the hedge and tree growing within (parts of) the northwest boundary provide nesting resources for Small Breeding Birds.
Should the proposed development be carried out mitigation for Small Breeding Birds should be adhered to.
Mitigation for Small Breeding Birds is contained in Section 7.3.
- there is a possibility that, on occasion, Grass snake, Lizard and/or Slow-worm may be present on The Site. In the absence of mitigation, there is a risk that the proposed development may cause the killing or injury of these reptile.

Considering the scale and nature of the proposed development and the existing records of reptile in the vicinity; it is not considered necessary for a reptile survey to be carried out to inform the proposed development.

In the absence of (reptile) mitigation, it is possible that the proposed development may cause the killing and/or injury of Grass snake.
Therefore, should the proposed development be carried out, mitigation for (all species of) 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.

- The Site potentially provides Great crested newt terrestrial habitat.
At the least, a survey will need to be carried out to confirm the (continued) presence or absence of Great crested newt within the nearby pond.

Recommended future survey for Great crested newt is contained in Section 8.1.

6.3 Bat Survey (Section 6)

The tree growing within the northwest boundary, denoted as Target Note 1, was identified as possibly providing bat roosting habitat and was subject to two Dusk Bat Emergence Surveys.

The Dusk Bat Emergence Surveys did not confirm the presence of (a) bat roost(s) within the tree.

It is not necessary for a European Protected Species Licence for bats to be issued by Natural Resources Wales to allow the tree to be lawfully removed.

However, it is possible that bats may roost on/within the tree in the future.

Should the tree continue to exist after two years from the most recent Dusk Bat Emergence Survey (13 July 2023); the tree should be re-surveyed for bat roost presence.

Recommended future bat survey of the tree is contained in Section 8.2.

6.4 Future ecological value of The Site

The post-development ecological value of The Site (and its immediate environs) will need to be enhanced by the installation and/or creation of wildlife habitat and sensitive management.

The following should be considered:

- the planting of a mixed native species rich boundary hedges.
- planting native fruit trees along and within boundaries.

- maintaining boundary hedges at a minimum of 2m height.
- rotationally trimming mature boundary hedges on a biennial basis.
- installing purpose-made bat roost boxes, bird nest boxes and/or insect nest boxes on trees and on buildings.
- installing purpose-made Hedgehog nesting boxes within (future) undisturbed areas.

Preferably, compensation and enhancement will be provided on The Site.

Should the provision of on-site compensation and enhancement not be feasible; off-site provisions may need to be considered.

However, the approval (in principal) of the Local Planning Authority should be obtained prior to off-site compensation and/or enhancement being designed.

7. MITIGATION

7.1 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

7.2 Badger, Hedgehog, Otter and Polecat

- 1) Permanent or temporary fencing should be installed around the perimeter of The Site to prevent Badger, Hedgehog, Otter and Polecat from entering The Site during the construction phase.
- 2) All personnel working on the site during development works should be made aware that Badger, Hedgehog, Otter and Polecat may use The Site and that precautions to minimise the risk of injuring or killing Badger, Hedgehog, Otter and Polecat are to be adopted.
- 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 Badger, Hedgehog, Otter or Polecat 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 Badger, Hedgehog, Otter or Polecat become trapped in excavations, these 'ramps' may potentially allow Badger, Hedgehog, Otter and Polecat a method of escaping on their own accord.

Prior to works re-commencing excavations should be inspected for the presence of Badger, Hedgehog, Otter and Polecat.

- 4) As a precaution, in case a Badger, Hedgehog, Otter or Polecat falls victim to site conditions, the site management should hold the contact details of a suitably experienced Badger, Hedgehog, Otter and Polecat worker.
Site personnel should not attempt to remove or recover a trapped or injured Badger, Hedgehog, Otter or Polecat.

- 5) Should Badger, Hedgehog, Otter and/or Polecat, or a suspicion of their presence, be found, work must immediately cease and the site management must be contacted.

7.3 Small Breeding Bird

Vegetation clearance (i.e. the removal of the hedge and the tree within the northwest boundary) 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.

8. RECOMMENDED FUTURE SURVEY

8.1 Great crested newt

8.1.1 Presence or Absence

Surveys should be carried out to establish if Great crested newt continue to be present within pond that is situated on the opposite side of the A483 highway, within the Heart of Wales Business Park.

This may be achieved by carrying out:

- a Great Crested Newt Presence/Absence Survey in accordance with Natural England's guidance; or,
- Environmental deoxyribonucleic acid (eDNA) analysis of water from sampled ponds for the presence, or not, of Great Crested Newt eDNA.

8.1.1.1 Great Crested Newt Presence/Absence Survey

The Great Crested Newt Presence/Absence Survey(s) should be carried out to in accordance with Natural England's Great crested newt survey guidelines.

I.e.:

- four survey sessions for Great crested newt should be made between mid-March and mid-June with at least two sessions between mid-April and mid-May;
- and at least three survey methods should be used on each survey session (preferably torch survey, bottle-trapping, and egg searching).

Should the Great Crested Newt Presence/Absence Survey establish the presence of Great crested newt: in accordance with Natural England's Great crested newt survey guidelines, an additional two survey sessions may be required to establish the Great crested newt population size class (see Section 8.1.2).

8.1.1.2 eDNA Analysis

Water samples taken from waterbodies between mid-April and 30th June may be sent for laboratory analysis to establish if Great crested newt are present or not within the sampled waterbody.

Prior to using eDNA analysis to establish the presence or absence of Great crested newt – the use of this technique should be confirmed (in writing) with the Local Planning Authority prior to work being carried out.

eDNA analysis cannot be used to estimate the population size class of Great crested newts. Therefore, should the eDNA analysis establish the presence of Great crested newt; a Great Crested Newt Population Size Class Estimate should be carried out in accordance with Natural England's Great crested newt survey guidelines.

8.1.2 Population Size Class Estimate

If Great crested newts are discovered within a waterbody; it may be necessary to carry out a population size class estimate survey of the waterbody.

Should the waterbody have been already subject to a Great Crested Newt Presence/Absence Survey; an additional two survey sessions should be carried out

before mid-June. As with the Great Crested Newt Presence/Absence Survey at least three survey methods should be used on each survey session (preferably torch survey, bottle-trapping, and egg searching).

An estimate may then be made of the likely number of Great crested newts present within the pond(s) and the landscape surrounding The Site.

Should the waterbody have been subject to an eDNA sample analysis; a Great Crested Newt Population Size Class Estimate should be carried out to in accordance with Natural England's Great crested newt survey guidelines.

I.e.:

- six survey sessions for Great crested newt should be made between mid-March and mid-June with at least two sessions between mid-April and mid-May;
- and at least three survey methods should be used on each survey session (preferably torch survey, bottle-trapping, and egg searching).

8.2 Bat

Should the mature Oak tree that stands at approximate NGR 306403, 262700 (within the northwest boundary of The Site) continue to remain after July 2025 and the removal of the tree is still required; the tree will need to be subject to another Bat Survey.

At the least; two Dusk Bat Emergence Surveys should be carried out by a minimum of two surveyors using bat echolocation equipment and night vision aids (night vision/infrared/thermal imaging cameras).

The surveys should be carried out at least 4 – 6 weeks apart during May, June, July or August.

9. 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.

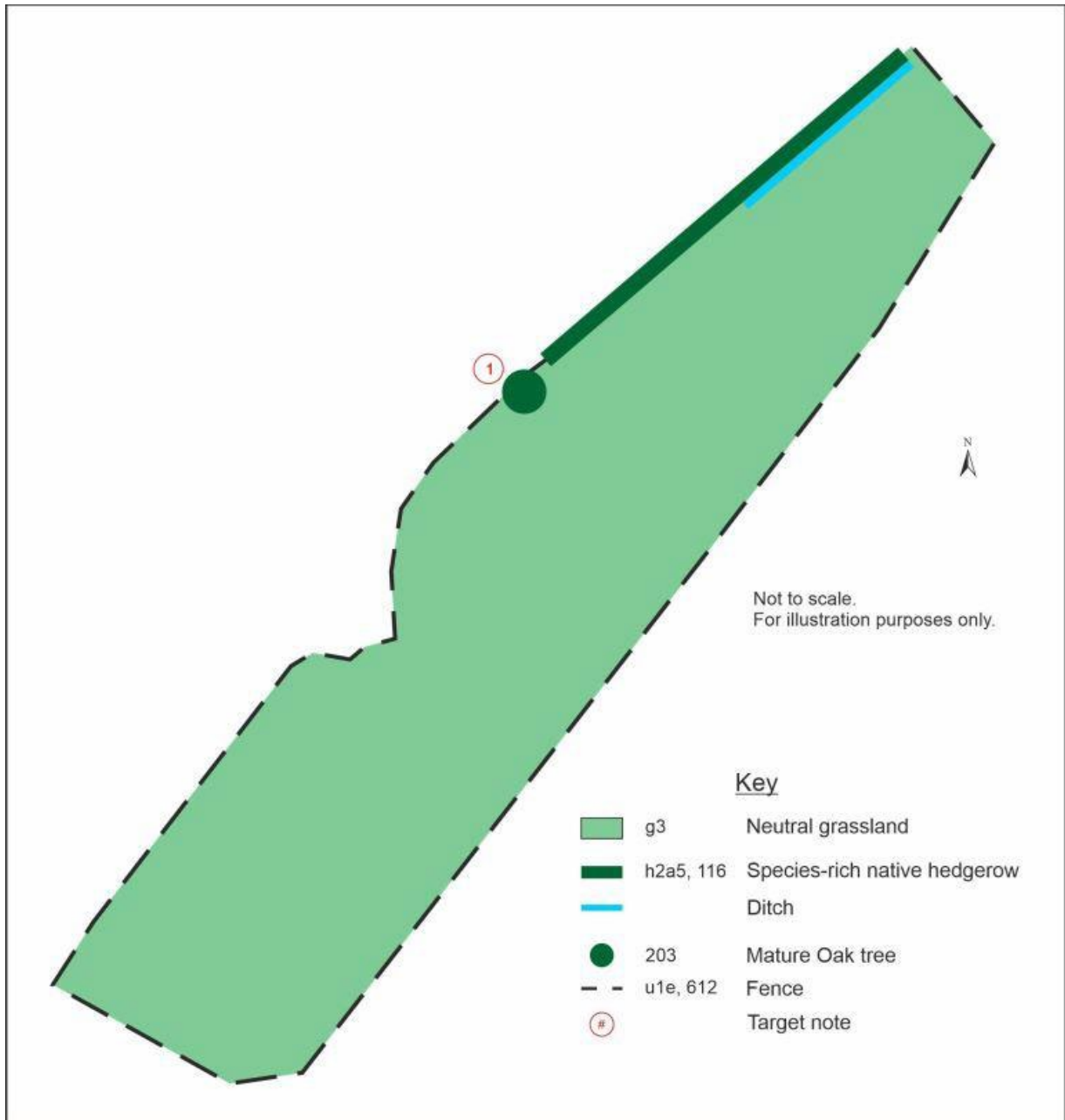
English Nature (2001). *Great crested newt mitigation guidelines – working today for nature tomorrow*. English Nature, Peterborough, England.

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. Extended UK Habitat Map



APPENDIX 2. Photographs of The Site



Photograph 1.

Aerial view of The Site and part of the A483 highway.
Looking roughly west from east.



Photograph 2.
View of the northeast area.
Looking northeast from southwest.



Photograph 3.
View within the southeast boundary (right).
Looking northeast from southwest.



Photograph 4.
View of the southwest area.
Looking southwest from northeast.



Photograph 5.
View looking northeast from the southwest corner.



Photograph 6.

View within the northeast-end of the northwest boundary (right).
The ditch is to the immediate left of the hedge and is grown-over with vegetation.
Looking southwest from northeast.



Photograph 7.

View along the northwest side of the northeast-end of the northwest boundary.
Looking roughly south from north.



Photograph 8.

View of Target Note 1.

A mature Oak tree that provides bat roost potential.

However, Dusk Bat Emergence Surveys did not record the presence of roosting bat.

Looking roughly north from south.