

Preliminary Ecological Appraisal
Land at Rose Farm
January 2024

A report by

Alexander Stuart BSc (Hons), MSc - Ecologist

Report details

Site name: Land at Rose Farm
Site address: Rose Farm, Chyenthal, Buryas Bridge, Penzance, TR19 6AN
Grid reference: SW 451 279
Survey date: 23rd January 2024
Report date: 28th January 2024
Report author: Alexander Stuart BSc (Hons), MSc
Report reviewer: Colin Hicks BSc (Hons), MCIEEM

Report no: WOR-4301

Declaration of compliance

BS 42020:2013

This study has been undertaken in accordance with British Standard 42020:2013 Biodiversity, Code of practice for planning and development.

Code of Professional Conduct

The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Validity of survey data and report

The findings of this report are valid for 12 months from the date of survey. If work has not commenced within this period, an updated survey by a suitably qualified ecologist will be required.

Non-technical summary

Western Ecology has been commissioned to complete a preliminary ecological appraisal of land at Rose Farm, Cornwall. This survey related to the extension of a cemetery and construction of a memorial.

To ensure compliance with nature conservation legislation and planning policy, the following recommendations are made with regards to habitats:

Cornish Hedgebank

Under current proposals, no hedge habitat is to be removed. All retained hedge habitat should be protected from accidental damage during the construction phase by a 2m buffer zone.

To ensure compliance with nature conservation legislation and planning policy, the following recommendations are made with regards to species:

Birds

It is likely that occasional common bird species nest within dense boundary habitats and trees within the Site. Any management activities affecting these habitats should be completed during the period September to February inclusive, outside the accepted bird nesting season. If this is not practicable, within 24 to 48 hours prior to the start of works these habitats should be thoroughly inspected by a suitably qualified person prior to disturbance or removal. If nesting birds are found, all activities likely to damage the immediate area should be delayed until chicks have fledged.

Badgers (and other Mammals)

Badgers likely use the site for foraging. If there is potential that mammals may become trapped within the site during the construction phase of a development, RAMs would be necessary.

Invasive Non-Native Plants

Three-cornered leek was recorded onsite. If affected areas are disturbed, mitigation is recommended to stop the spread of the INNS around the Site and into off-site areas. Removal is best achieved by excavating the plant, underground bulbs and surrounding soil, either using hand tools or excavators for larger areas. All arisings will need to be treated as controlled waste and disposed of at a properly licensed facility.

Biodiversity Enhancement

A small site metric biodiversity net gain of 10% may be required for this development. Simple measures for biodiversity enhancement are also recommended within this report.

Further Survey Work

No further survey work is recommended.

Table of contents

1. Introduction	5
1.1. Survey aims	5
1.2. Site location.....	5
2. Survey methodology	6
2.1. Desktop survey.....	6
2.2. Field survey.....	6
2.3. Method for valuation of habitats.....	7
2.4. Survey constraints.....	7
2.5. Study area.....	7
3. Results.....	8
3.1. Site description.....	8
3.2. Phase 1 habitats.....	8
3.3. Desktop survey	9
Map 1. Phase 1 Habitats	11
3.4. Potential for species of nature conservation importance.....	12
4. Evaluation of ecological features and potential impacts	13
4.1. Introduction	13
4.2. Habitats of nature conservation importance.....	13
4.3. Species of Nature Conservation Importance	14
5. Recommendations for mitigation and further surveys.....	17
5.1. Mitigation.....	17
5.2. Habitats of nature conservation importance.....	17
5.3. Protected species and species of nature conservation importance.....	18
5.4. Summary of net gains and losses.....	19
6. Further survey work	20
7. Biodiversity enhancement	21
7.1. Bird Boxes.....	21
7.2. Invertebrates	21
7.3. Hedgerow Management	21
8. References	22
9. Appendix 1:.....	23

1. Introduction

Western Ecology has been commissioned to complete a preliminary ecological appraisal of land at Rose Farm, Cornwall. This survey related to the extension of a cemetery and construction of a memorial.

1.1. Survey aims

The survey and this report identify features of conservation importance that could constitute a constraint to any future proposals for this site. Where appropriate, recommendations for impact avoidance, mitigation and possible post-development enhancement are made to ensure compliance with wildlife legislation and relevant planning policy.

This survey has been prepared in accordance with the 'Guidelines for Preliminary Ecological Appraisal' produced by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017).

1.2. Site location

The Site is located within a rural area, 2.8km to the south-west of the coastal town of Penzance, in south-western Cornwall. It is bordered by agricultural land to the north, east, and south; with Chyenhal moor to the west.

2. Survey methodology

2.1. Desktop survey

A desktop survey identified any nature conservation sites that may be affected by the proposals. This comprises an important part of the assessment process, providing information on ecological issues that may not be apparent during the site survey.

Consultees for the data search included:

- A biological record data search was provided by ERCCIS, with a radius of 1km from the centre of the Site.
- Natural England - GIS dataset of SSSI Impact Risk Zones, statutory nature conservation sites, priority habitats and granted European Protected Species license applications.

The location of nature conservation sites was examined to determine their ecological and landscape relationships with the proposed site. An assessment was then made of how the sites may be affected by the proposal, taking into account these relationships, and the species and/or habitat types for which the nature conservation site was chosen.

SSSI Impact Risk Zones are areas where the change to the environment could either create significant damage to a local SSSI, or might require additional planning and consultation in order to avoid impacting such sites. The assessments are made according to the particular sensitivities of the features for which the SSSI is notified, and specifies the types of development that have the potential for adverse impacts.

In compliance with the terms and conditions relating to its commercial use, the full desk study data is not provided within this report.

2.2. Field survey

A Preliminary Ecological Appraisal of the site was completed by Alexander Stuart BSc (Hons), MSc.

The survey was undertaken at 13:30 on 23rd January 2024. Weather conditions during the survey were dry, with an air temperature of 10°C, and light wind.

Habitats were classified using the Phase 1 Habitat Survey methodology developed by the Joint Nature Conservation Committee (JNCC, 2010) and modified by the Institute of Environmental Assessment (IEA, 1995). Habitats encountered are described within the Results section, with a map included within the report. Plant species were identified according to Stace (1997).

2.3. Method for valuation of habitats

The ecological value of habitats present is provided in line with Guidelines for Ecological Impact Assessment (CIEEM, 2018), and those which are important in terms of legislation or policy are identified.

The nature conservation value, or potential value, of the habitat is determined within the following geographic context:

- International importance (e.g. internationally designated sites such as Special Areas of Conservation, Special Protection Areas, Ramsar sites);
- National importance (e.g. nationally designated sites such as Sites of Special Scientific Interest or species populations of importance in the UK context);
- County importance (e.g. SNCI, habitats and species populations of importance in the context of Cornwall);
- Local importance (e.g. important ecological features such as old hedges, woodlands, ponds);
- Site importance (e.g. habitat mosaic of grassland and scrub which may support a diversity of common wildlife species);
- Negligible importance. Usually applied to areas such as built development or areas of intensive agricultural land.

The examples are not exclusive and are subject to further professional ecological judgment.

2.4. Survey constraints

All areas of the Site were readily accessible. Due to the timing of the survey, constraints relating to plant identification were present.

It should be noted that habitats, and the species they may support, change over time due to natural processes and because of human influence. In line with current guidelines, the survey on which this report is based is valid for two years, after which time it will need updating. This report is valid until 23rd January 2025.

2.5. Study area

The study area for the desktop survey is within 1km. The study area for the Preliminary Ecological Appraisal was the likely footprint of the proposed development, hereafter referred to as the 'Site', and its immediate boundaries. This is the area included within the line described as "Survey area" within the legend of Map 1.

3. Results

3.1. Site description

The Site comprised mostly of hedgebank-lined improved grassland, with a fenced chicken coop area in the north-west corner of the Site. An access track extended westward towards the nearby road network. Wooden stock fences form the south-eastern boundary of the Site.

3.2. Phase 1 habitats

Habitats have been classified using the Phase 1 Habitat Survey methodology and are described below and detailed in Map 1. Habitats which are important in terms of legislation or policy are identified. Plant species that characterise each of these habitats are identified, although this is for descriptive purposes, and comprehensive inventory is not provided.

Table 1: Habitat description, biodiversity value and extent.

Habitat	Description	Biodiversity value
Improved Grassland	Improved grassland fields comprising mainly perennial rye grass, with red fescue and cocksfoot, formed the majority of the Site. Other species present within the grassland included dock, dandelion, white clover, and spear thistle. These fields were at a short sward.	Site
Cornish Hedgebank (species-poor)	Cornish hedgebank with species-poor hedgerow with trees formed the boundaries of the Site. Species included mainly blackthorn, with hawthorn and gorse. Understorey species including navelwort, ivy, nettles, cleavers, and hart's tongue fern. The southern stretch of hedgebank also featured three-cornered leek growing at its base.	Site Habitat of Principle Importance
Hardstanding	The access track extends from the main site area to the road to the west.	Negligible

3.3. Desktop survey

The biological records search found a number of notable species within the geographical parameters of the search (Table 2).

Table 2. Recent notable species records within 1km (2013-2024).

Taxon	Scientific Name	Common Name	Records
Bird	<i>Accipiter nisus</i>	Sparrowhawk	1
	<i>Apus apus</i>	Swift	1
	<i>Chloris chloris</i>	Greenfinch	4
	<i>Cinclus cinclus</i>	Dipper	3
	<i>Columba palumbus</i>	Woodpigeon	2
	<i>Corvus frugilegus</i>	Rook	1
	<i>Delichon urbicum</i>	House Martin	1
	<i>Falco tinnunculus</i>	Kestrel	1
	<i>Gallinago gallinago</i>	Snipe	1
	<i>Larus argentatus</i>	Herring Gull	1
	<i>Milvus milvus</i>	Red Kite	1
	<i>Motacilla cinerea</i>	Grey Wagtail	1
	<i>Muscicapa striata</i>	Spotted Flycatcher	1
	<i>Passer domesticus</i>	House Sparrow	1
	<i>Phylloscopus trochilus</i>	Willow Warbler	1
	<i>Pyrrhula pyrrhula</i>	Bullfinch	1
	<i>Strix aluco</i>	Tawny Owl	1
	<i>Sturnus vulgaris</i>	Starling	1
	<i>Troglodytes troglodytes</i>	Wren	2
<i>Turdus iliacus</i>	Redwing	1	
Flowering plant	<i>Arum italicum subsp. neglectum</i>		1
	<i>Oxalis acetosella</i>	Wood-sorrel	1
	<i>Ranunculus tripartitus</i>	Three-lobed Crowfoot	1
Fungus	<i>Hypocreopsis rhododendri</i>	Hazel Gloves	1
Insect	<i>Lasiommata megera</i>	Wall	3
	<i>Lasioglossum malachurum</i>	Sharp-collared Furrow Bee	1
	<i>Tetrix ceperoi</i>	Cepero's Ground-hopper	1
	<i>Acanthoxyla prasina subsp. inermis</i>	Unarmed Stick-insect	11
Mollusc	<i>Melarhapha neritoides</i>	Small Periwinkle	1
Terrestrial mammal	<i>Erinaceus europaeus</i>	West European Hedgehog	8
	<i>Meles meles</i>	Eurasian Badger	1
Terrestrial mammal - bat	<i>Myotis nattereri</i>	Natterer's Bat	1
	<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	1
	<i>Plecotus auritus</i>	Brown Long-eared Bat	1

Statutory Nature Conservation Sites (SNCS)

There is one SNCS located within 1km of the Site, with details below.

Chyenhal Moor Site of Special Scientific Interest (SSSI)

This SNCS is located within 0.1km west of the proposed Site. This SNCS comprised heath, damp scrub, and water features; supporting notable plant and invertebrate communities.

Non-statutory Nature Conservation Sites (NNCS)

There is one NNCS located within 1km of the Site, with details below.

Clodgy Moor County Wildlife Site (CWS)

This NNCS is located approx. 0.8km south of the proposed Site. The site includes BAP priority habitats (purple moor grass and rush pastures) and supports notable plant species.

Impact Risk Zones

The Site is within an area identified as a SSSI Impact Risk Zone for this type of development. This related to Chyenhal Moor SSSI.



Legend

-  Survey Area (approx.)
-  Fence
-  Cornish hedgebank
-  Hardstanding
-  Improved grassland

Title: Map 1. Phase 1 habitats

Project: Land at Rose Farm

Checked by: CDH Version: 01
Date: 24/01/2024

3.4. Potential for species of nature conservation importance

Habitats have been assessed from the results of the field survey for their potential to support protected species (Table 3). Where there is no potential for a species or species group to be present within the site they may be scoped out at this stage.

Table 3. Potential for species of nature conservation importance

Species	Assessment	Likely value
Amphibians	Habitats within the Site do not provide potential for breeding amphibians. Low numbers of foraging and/or hibernating amphibians may utilise the Site boundaries.	Potentially present at boundaries
Badgers	No badger setts were observed within or immediately adjacent to the Site's boundaries. Foraging badgers are likely active within the area, and the Site is suitable for foraging.	Foraging Only
Bats	The trees onsite showed negligible potential for roosting bats.	Roosting: Negligible
	The linear nature of the hedgerows and tree-lines provide some suitable foraging and commuting habitat for bats. The Site is well-connected to good-quality foraging habitat nearby. The site and its surroundings are likely unlit at night, increasing suitability for light-averse bats.	Foraging: Moderate
Birds	The hedgebanks and mature trees provide nesting opportunities for a range of common passerine bird species.	Moderate
Common Dormouse	The majority grassland habitat onsite is unsuitable for dormice. The densely vegetated boundaries (hedgebanks) offer some limited suitability, but are relatively species-poor and often heavily managed. These hedgebanks will not be impacted by the proposals. This species does not need to be considered further.	Negligible
Hedgehog	The hedgerows and rough grassland habitats provide potential refuge and foraging opportunities for hedgehogs.	Moderate
Reptiles	The majority of the Site comprised managed improved grassland, which is of little value to reptiles. The dense boundary features and may hold value for foraging and/or hibernating reptiles.	Potentially present at boundaries
Otter	No watercourses are associated with the site. This species does not need to be considered further.	Negligible
Water Vole	No watercourses are associated with the site. This species does not need to be considered further.	Negligible
Notable invertebrates	Habitats at this Site are likely to support common and widespread invertebrates, although priority invertebrate habitats such as flushes, suitable brown-field land, and soft rock cliffs are absent from the Site. These species do not need to be considered further.	Negligible
Notable plants	Habitats within the Site provide little potential for notable or rare plants and they do not need to be considered further.	Negligible
Invasive non-native plants (INNS)	Three-corned leek, a Schedule 9 listed INNS (Wildlife and Countryside Act 1981 (as amended), was identified along the southern hedgebank boundary.	Confirmed

4. Evaluation of ecological features and potential impacts

4.1. Introduction

Ecological features that have the potential to be present have been assessed in light of current nature conservation policy, planning policy and wildlife legislation by an experienced ecologist (see Appendix 1). Where necessary, the ecological value of an ecological feature is given along with the potential effect of a proposed development.

If it is considered that the proposed development is likely to have no effect on features that have been identified as present, or potentially present, they may be scoped out at this stage.

4.2. Habitats of nature conservation importance

Protected habitats

Habitats are protected under international and national legislation including The Conservation of Habitats and Species Regulations (Amendment (EU Exit)) 2019, and Wildlife and Countryside Act 1981 (as amended). These have been formulated into policy measures, with many examples protected under formal site designations such as SSSIs and SACs.

No habitats of European Community Importance as defined within The Conservation of Habitats and Species Regulations (Amendment (EU Exit)) 2019 were present within this site. Protected habitats of this type are not a consideration for this project.

Notable habitats

Sixty five habitats are listed as being of principal importance, in the Secretary of State's opinion, for the purposes of conserving biodiversity. Under section 41 (England) of the NERC Act (2006) there is a need for these habitats to be taken into consideration by a public body when performing any of its functions with a view to conserving biodiversity. These habitats are the subject of National and Local Biodiversity Action Plans.

Hedgerows are given particular protection under the Protection of Hedgerows Act 1997.

Cornish hedgebank

The Site's hedgebank habitats qualify as Habitats of Principal Importance.

Any loss in extent of this habitat would be a material consideration to a planning application and mitigation would be recommended. No removal of hedgebank habitat is planned under current proposals. Precautionary mitigation is recommended to protect against accidental damage.

4.3. Species of Nature Conservation Importance

Overview

Many native wild plants and animals are protected by law with the two main legal instruments being the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations (Amendment (EU Exit)) 2019. The latter consolidates amendments to the Conservation (Natural Habitats, &c) Regulations 1994 which transposed into UK Law the EU Habitats Directive.

1150 species of fungi, plant or animal are listed as being of principal importance, in the Secretary of State's opinion, for the purposes of conserving biodiversity. Under section 41 (England) of the NERC Act (2006) there is a need for these species to be taken into consideration by a public body when performing any of its functions with a view to conserving biodiversity. These species are the subject of National and Local Biodiversity Action Plans.

Amphibians

The four native widespread amphibians (Common Frog, Common Toad, Common Newt and Palmate Newt) are given limited protection from trade under the Wildlife and Countryside Act 1981 (as amended).

Great Crested Newt and Natterjack Toad and their breeding sites and resting places (during all parts of their lifecycle) are fully protected under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017. They are identified as European Protected Species. Under these laws it is an offence to:

- capture, kill, disturb or injure Great Crested Newts and Natterjack Toads (on purpose, or by not taking enough care);
- damage or destroy a breeding or resting place (even accidentally);
- obstruct access to their resting or sheltering places (on purpose, or by not taking enough care);
- possess, sell, control or transport live or dead newts, or parts of them;
- take Great Crested Newt or Natterjack Toad eggs.

The very rare Pool Frog, only recently recognised as a native amphibian, is fully protected under the Wildlife and Countryside Act 1981 (as amended) from killing, injury, trade and disturbance, whilst their habitats are also protected.

Great Crested Newt, Natterjack Toad, Common Toad and Pool Frog are listed as species 'of principal importance for the purpose of conserving biodiversity'.

There is some potential for low numbers of widespread amphibians to be active within the dense site boundaries, during their terrestrial and/or hibernation phases. These areas are outside of the scope of the development, and any animals which may be present will be protected by the recommended mitigation for Cornish hedgebanks (see Section 5.1, below). No further mitigation is recommended.

Badgers

Badgers are protected from persecution or ill-treatment under the Protection of Badgers Act 1992. Under the Act, it is an offence to:

- wilfully kill, injure or take, or attempt to kill, injure or take, a badger;
- damage a badger sett or any part of it;
- destroy a badger sett;
- obstruct access to, or any entrance of, a badger sett;
- cause a dog to enter a badger sett; or
- disturb a badger when it is occupying a badger sett.

The site and its surroundings are suitable for foraging badgers. There may be potential for Badgers to get trapped within the Site during the construction phase. Precautionary mitigation for foraging badgers is recommended.

Bats

Bat species and their breeding or resting places (roosts) are protected under the Wildlife and Countryside Act 1981 (as amended), and The Conservation of Habitats and Species Regulations (Amendment) (EU Exit) 2019. They are identified as European Protected Species. Under these laws it is an offence to:

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

Seven species of bat are listed as species “of principal importance for the purpose of conserving biodiversity”.

The grassland habitat which accounts for the majority of the Site provides relatively poor foraging habitat, due to a lack of supported insect prey. Any loss of low value grassland habitats to development is considered to be unlikely to impact local bat populations. However, the linear habitats associated with the Site (such as hedges and trees) which are present at the boundaries are likely to provide some foraging and commuting opportunities.

The proposed development will be unlit at night and the site boundaries will not be impacted. In addition to this, the planting of trees will likely enhance the Site for foraging bats over the long term. No mitigation is recommended.

Birds

All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended) from being killed, injured or captured whilst their nests and eggs are protected from being damaged, destroyed or taken. Birds which are listed under Schedule 1 of the Act are given additional protection against disturbance.

Fifty-nine species of bird are listed as species “of principal importance for the purpose of conserving biodiversity”.

It is likely that common and widespread birds nest within dense hedge and mature trees present at the boundaries. These habitats are to remain intact during development. If management works with the potential to impact nesting birds occurred outside the accepted bird nesting season, no mitigation would be recommended. However, if this is not the case, mitigation would be recommended.

Hedgehog

Hedgehogs are partially protected under the Wildlife & Countryside Act and may not be trapped without a licence from Natural England. Hedgehogs are listed as a species “of principal importance for the purpose of conserving biodiversity”.

There is potential that Hedgehogs forage within the Site. Development may have potential to fragment foraging habitat and create a barrier to dispersal across the Site. Simple mitigation relating to badgers (and other mammals) will also apply to hedgehog, and no further mitigation is recommended.

Reptiles

All native reptiles are protected to some degree under the Wildlife and Countryside Act 1981 (as amended), whilst our two rarest species, the Sand Lizard and Smooth Snake, are given full protection under the Act, and also identified as European Protected Species.

The four common species (Slow Worm, Adder, Grass Snake and Common (Viviparous) Lizard) are protected from deliberate killing, injury and trade. All six native reptiles are listed as species “of principal importance for the purpose of conserving biodiversity”.

There is some potential for low numbers of common reptiles to be active within the dense site boundaries. These areas are outside of the scope of the development, and any animals which may be present will be protected by the recommended mitigation for Cornish hedgerbanks (see Section 5.1, below). No further mitigation is recommended.

Invasive Non-Native Plants

Several plant species in the UK are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) which makes it illegal to allow them to spread.

Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), relates to the introduction of plant and animal species that are not native to the UK. It is an offence to ‘cause to grow in the wild’ and spread any plant that is listed under this Schedule.

This includes the three-corned leek that is growing along the southern hedgerbank. Works within the Site have the potential to disturb these invasive plants and mitigation is recommended.

5. Recommendations for mitigation and further surveys

5.1. Mitigation

Where there is potential that a proposed development will have a significant¹ effect on a valued ecological feature of nature conservation interest, recommendations for mitigation are made based on the mitigation hierarchy suggested in Paragraph: 018 Reference ID: 8-018-20140306 of National Planning Practice Guidance;

Avoidance –significant harm to wildlife species and habitats should be avoided through design.

Mitigation – where significant harm cannot be wholly or partially avoided, it should be minimised by design, or by the use of effective mitigation measures that can be secured by, for example, conditions or planning obligations.

Compensation – where, despite whatever mitigation would be effective, there would still be significant residual harm, as a last resort, this should be properly compensated for by measures to provide for an equivalent value of biodiversity.

Where the detail of a proposal is unknown, such as in outline planning applications, general mitigation will be suggested. This should be re-addressed once final plans are known.

Further survey work

Where further survey work is not recommended, this is because it is the professional judgement of the ecologist that adequate information is already available and further surveys would not make any material difference to the assessment provided.

Where the information within this report is insufficient to allow a full description of the nature conservation features of the site along with a robust assessment of the potential effects on these features, further survey work will be recommended.

5.2. Habitats of nature conservation importance

Cornish Hedgebank

No hedge habitat is proposed to be lost to the development. All retained hedge habitat should be protected from accidental damage during the construction phase by a 2m buffer zone. This protection zone should be delineated by a suitable fence and maintained for the duration of the works, and there should be no access, storage of materials, ground disturbance, burning or contamination within the fenced areas.

¹ For the purposes of this report, a practical approach has been taken to define the term 'significant'. If an effect is sufficiently important to be given weight in the planning process or to warrant the imposition of a planning condition, it is likely to be 'significant' in the context of the level under consideration (BSI, 2013).

5.3. Protected species and species of nature conservation importance

To ensure compliance with nature conservation legislation and planning policy, the following recommendations are made with regards to species:

Badgers (and other mammals)

To prevent any restriction of movement and animals becoming trapped during the construction phases of a development, the following is recommended:

- Permanent fencing should be fitted with suitable holes to allow small mammals, such as hedgehogs, to continue using the site through the operation of the proposed development.
- Site security fencing along the boundaries should leave a gap of at least 2 metres wide between the fence and any woodland, hedgerow or scrub;
- Any trenches left open at night should have some means of escape for mammals, such as the placement of a scaffolding board at one end;
- Any site security fences should have a gap at each corner sufficient to allow mammals to exit the Site should they gain entry.

Birds

It is highly likely that common and widespread birds nest within the onsite hedges and trees. Any management activities affecting these habitats should be completed during the period September to February inclusive, outside the accepted bird nesting season. If this is not practicable, within 24 to 48 hours prior to the start of works these habitats should be thoroughly inspected by a suitably qualified person prior to disturbance or removal. If nesting birds are found, all activities likely to damage the immediate area should be delayed until chicks have fledged.

Invasive Non-native Species (INNS)

Three-cornered leek is growing along the southern hedgebank. If this area is likely to be disturbed, there is a risk of causing them to spread.

Control and/or mitigation may include the pulling up of young seedlings and excavating the roots mass. Any material from the INNS/containing INNS waste must be either chipped/burnt on site, or removed to licensed landfill as controlled waste.

5.4. Summary of net gains and losses

Table 4 provides a summary of net gains and losses to biodiversity resulting from the proposed development with mitigation, but without biodiversity enhancement.

Table 4. Summary of net gains and losses to biodiversity

Nature conservation feature	Potential impact	Proposed mitigation	Outcome/Comments
Cornish Hedgebank	Accidental damage during construction.	Adoption of a suitable protection zone with fencing.	Impact avoided
Badgers (and other mammals)	Becoming trapped within the site	Simple mitigation is recommended.	Impact avoided
Nesting Birds	Harm during hedgerow and tree management	Any activities affecting nesting habitats should be completed during the period September to February inclusive, outside the accepted bird nesting season.	Direct harm and injury avoided
Invasive non-native species of plant	Possible spread across Site and wider area.	Removal and disposed of as controlled waste, if necessary.	Impact avoided and positive gain

6. Further survey work

Information within this report is sufficient to allow a robust assessment of the potential effects on the majority of ecological features associated, or potentially associated, with this site.

No further surveys are recommended.

7. Biodiversity enhancement

In line with the Environment Act 2021, the majority of Local Planning Authorities (LPA) are now requiring suitable enhancements for wildlife within minor developments, with the aim of securing net gain. Although applying a measurable net gain does not apply to permitted development, change of use, or alterations to buildings and housing extensions, the LPA will likely seek proportionate enhancements for wildlife from these developments. Depending upon the LPA's requirements, this might include bat box/brick/tubes, bird box/bricks and bee bricks. If structurally inappropriate to the design, the use of alternative, but equivalent, wildlife features is possible.

Creating new habitats, enhancing existing habitats or providing new wildlife features, can all contribute towards biodiversity enhancement, and helping to rebuild habitat networks in the wider area improves ecological resilience and adaptation to climate change.

It should be noted that a biodiversity net gain of 10% may be required for this development. Biodiversity net gain calculations should be completed at the earliest practicable stage in the development to avoid significant re-design costs in the latter stages of the planning process.

Enhancements are additional to any measures necessary to deal with potential impacts on site, as they are an opportunity to provide new benefits for biodiversity as a consequence of the proposals being implemented.

For this development, we recommend:

- Hedgerow Management

7.1. Hedgerow Management

A sympathetic management regime could be adopted for any existing hedges. This could include the following:

- Trim the hedgerows between November to February to avoid the destruction of any bird nests; and to allow any berry crops that are present to be used by wintering birds and other wildlife.
- Trim on a two- or three-year rotation, rather than annually, to ensure that thick nesting cover is available, and to boost any berry crop that generally develops on second-year growth. Cutting could also be targeted so that no more than a third of the total length is cut during one rotation.
- Rejuvenate hedges when they become gappy at the base, to keep them healthy, by laying rather than coppicing.
- Retain old, dying and dead trees where these are not a hazard, as they support important insect communities.

8. References

BSI, 2013. *British Standard 42020: 2013. Biodiversity – Code of practice for planning and development*. British Standards Institution, London.

CIEEM, 2016. *Guidelines for Ecological Impact Assessment: Terrestrial, Freshwater and Coastal. Technical Guidance Series*. Chartered Institute of Ecology and Environmental Management, 43 Southgate Street, Winchester, Hampshire.

CIEEM, 2017. *Guidelines for Preliminary Ecological Appraisal (GPEA). Technical Guidance Series*. Chartered Institute of Ecology and Environmental Management, 43 Southgate Street, Winchester, Hampshire.

Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edition). The Bat Survey Trust, London. ISBN-978-1-7395126-0-6

Institute of Environmental Assessment (IEA), 1995. *Guidelines for Baseline Ecological Assessment*, Institute of Environmental Assessment. E&FN Spon, aJn Imprint of Chapman and Hall. London.

Joint Nature Conservation Committee, 2010. Reprinted by JNCC, Peterborough

JNCC and Defra (on behalf of the Four Countries' Biodiversity Group), 2012. *UK Post-2010 Biodiversity Framework*. July 2012.

Stace, C., 1997. *New Flora of the British Isles*. 2nd edition. Cambridge University Press, Cambridge.

9. Appendix 1:

Legislation and Policy used to assess habitats and species:

European Habitats and Species Directive (CEC, 1992)

The main aim of the Habitats Directive is to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore natural habitats and wild species listed on the Annexes to the Directive at a favourable conservation status, introducing robust protection for those habitats and species of European importance.

European Red Data lists (IUCN, 2000)

International Union for Conservation of Nature (IUCN and the European Commission have been working together on an initiative to assess around 6,000 European species according to IUCN regional Red Listing Guidelines. Through this process they have produced a European Red List identifying those species which are threatened with extinction at the European level so that appropriate conservation action can be taken to improve their status.

European Council Birds Directive (CEC, 1979)

The Directive provides a framework for the conservation and management of, and human interactions with, wild birds in Europe. An important part of this Directive is the identification and classification of Special Protected Areas (SPAs) to protected vulnerable bird species listed in Annex 1 of the Directive and regularly occurring migrating species.

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

This Act is the primary legislation that protects animals, plants and certain habitats in the UK.

The Conservation of Habitats and Species Regulations (Amendment (EU Exit)) 2019

The Conservation of Habitats and Species Regulations (Amendment) (EU Exit) 2019 amends the previous Conservation of Habitats and Species Regulations 2017, which are one of the pieces of domestic law that transposed the land and marine aspects of the Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (“the Habitats Directive”) and elements of Directive 2009/147/EC on the conservation of wild birds (“the Birds Directive”) in England, Wales, and to limited extent, Scotland and Northern Ireland.

Protection of Badgers Act 1992

The Protection of Badgers Act 1992 consolidated and improved previous legislation. Under the Act it is an offence to kill, injure or take a Badger, or to damage or interfere with a sett used by a Badger unless a licence is obtained from a statutory authority.

The Hedgerow Regulations 1997

The Hedgerows Regulations 1997 protect certain hedgerows from being removed (uprooted or destroyed) if they meet certain criteria.

[The Countryside and Rights of Way \(CRoW\) Act 2000](#)

This Act increases measures for the management and protection for Sites of Special Scientific Interest (SSSI) and strengthens wildlife enforcement legislation.

[Circular 06/2005 Biodiversity and geological conservation – statutory obligations and their impact within the planning system](#)

This circular provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England. It complements the national planning policy in the National Planning Policy Framework and the Planning Practice Guidance.

[Natural Environment and Rural Communities Act 2006](#)

The Act made amendments to the both the Wildlife and Countryside Act 1981 and the Countryside and Rights of Way (CROW) Act 2000. For example, it extended the CROW biodiversity duty to public bodies and statutory undertakers.

[UK Post-2010 Biodiversity Framework, 2012](#)

The 'UK Post-2010 Biodiversity Framework', published in July 2012, succeeds the UK BAP and 'Conserving Biodiversity – the UK Approach', and is the result of a change in strategic thinking.

[National Planning Policy Framework, 2019](#)

The National Planning Policy Framework sets out the Government's planning policies for England and how these are expected to be applied. It contains a number of policies relating to ecology including "minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures".

[The natural choice: securing the value of nature \(2011\) \(Natural Environment White Paper\)](#)

This White Paper outlines the Governments vision for the future of landscape and ecosystem services.

[Biodiversity 2020](#)

This is a national strategy for England's wildlife and ecosystem services based on the White Paper.