

Preliminary Ecological Appraisal
Land at High Down Farm, Pensilva, Cornwall
August 2023

A report by

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Report details

Site name:	Land at High Down Farm, Pensilva, Cornwall, PL14 5RH
Grid reference:	SX 30515 69205
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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.

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Non-technical summary

Western Ecology has been commissioned to complete a Preliminary Ecological Appraisal of land at High Down Farm, Pensilva, Cornwall. The proposed development comprises the development of a new barn for agricultural storage and an associated access track.

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

Hedgerow

Hedgerows should be protected against accidental damage during construction by a suitable fenced protection zone (2m).

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

Badgers

There is potential that Badgers occasionally use the site. As such, it is possible that Badgers may become trapped within the construction site during the construction phase. Simple mitigation is recommended within the report.

Bats

Precautionary light mitigation is recommended.

Nesting birds

There is limited potential for occasional common bird species to nest within habitats within and bounding the site. If any of these habitats are to be cleared or disturbed during the accepted bird nesting season (March to August inclusive), the habitat should be thoroughly inspected, by a suitably qualified person, prior to disturbance. If nesting birds are found, all activities likely to damage the immediate area should be delayed until chicks have fledged.

Dormice

There is limited potential for dormice to utilise the hedgerow associated with Site boundaries. Precautionary mitigation in relation to lighting and disturbance should be adopted during the construction phase, with a 2m hedgerow protection zone as recommended in Section 5.1: Hedgerows.

Hedgehog

Mitigation is recommended during construction and to enable continued movement through the site.

Reptiles

Reasonable Avoidance Measures are recommended during the construction phase.

To ensure compliance with nature conservation legislation and planning policy, the following recommendations are made with regards to Non-statutory Nature Conservation Sites:

Newbridge to Fillamore County Wildlife Site

It is recommended that a Construction Environmental Management Plan (CEMP) should be produced prior to, and adopted during, the construction phase of the development.

Further surveys

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

No additional surveys are required.

Biodiversity enhancement

Simple biodiversity enhancements are recommended.

1. Introduction

Western Ecology has been commissioned to complete a Preliminary Ecological Appraisal of land at High Down Farm, Pensilva, Cornwall.

1.1. Proposed development

The proposed development comprises the development of a new barn and an associated access track.

1.2. Survey aims

The survey and this report identify features of conservation importance that could constitute a constraint to the proposals for this site. Where appropriate, recommendations for impact avoidance, mitigation and 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).

1.3. Site location

The site is situated in rural surrounds, 1.3 km to the south- east of the village of Pensilva, and 6 km to the north-east of the town of Liskeard in south-east Cornwall.

2. Survey methodology

2.1. Desktop survey

In light of the habitats present within the site, a biological records search was not considered appropriate for the scale and probable impact of the proposed development.

The desktop survey identified any statutory 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:

- Natural England - GIS datasets of Statutory Nature Conservation Sites.
- Cornwall County Council- Interactive Map
- Multi-Agency Geographic Information for the Countryside map (MAGIC Map)

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 proposed planned 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 Emily Andrew BSc (Hons) MSc on 8th August 2023. The survey was undertaken in suitable weather conditions, with an air temperature of 16°C, light south-westerly winds, light scattered rain and with 80% cloud.

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). The main plant species were recorded, and broad habitat types mapped. 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. Table 1 summarises this information and details the extent of each habitat recorded here.

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. The Site had been recently cut and so this limited the identification of some plant species and some would have not been visible during the survey period, within such a small, simple site comprising common and widespread habitat types, the timing of this survey is not a significant constraint to a robust initial site assessment.

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 one year, after which time it will need updating. This report is valid until 8th August 2024.

2.5. Study area

The study area for the desktop survey is within 2km for Statutory Nature Conservation Sites and 1km for Non-statutory Nature Conservation Sites. The study area for the Preliminary Ecological Appraisal was the 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 majority of the Site comprises an area of semi-improved grassland which is cut biannually. A proposed access track skirts along the north-eastern side of a field of managed arable land in the form of recently harvested wheat crops.

Boundaries to the wider field outside of the Site footprint comprise unmanaged and managed hedgerows, with a stream running along the northern, and north-eastern boundaries.

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 and is given in Table 1. 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 type	Description	Biodiversity value
Semi - improved grassland	The northern-most field was on a steep slope and had been recently cut, with the species remaining low in diversity, including a mix of common grass species including frequent Yorkshire fog and <i>Festuca</i> spp., with occasional common bent and annual meadow grass. Forbs including occasional common nettle, cleavers, ribwort plantain, and rare dock sp., yarrow, creeping buttercup and spear thistle.	Site
Arable Land	The proposed access track runs along the edge of an arable wheat field, with areas of bare ground and some ephemeral/short perennial species on the edges including rare dandelion, spear thistle, broadleaved dock and common nettle.	Negligible
Species-poor hedgerow	<i>A species-poor hedgerow with associated fence provides an immediately adjacent boundary to the north-east of the proposed access track, with abundant blackthorn and frequent sycamore and hawthorn. The understorey includes frequent bramble, cleavers common nettles and various thistles.</i>	<i>Habitat of Principal Important (JNCC & Defra, 2012)</i>

3.3. Desktop survey

Statutory nature conservation sites

No Statutory Sites are located within 2km of the Site.

The Site is within a Zone of Influence (Natura 2000) for Plymouth Sound and Estuaries SAC.

Non-statutory nature conservation sites






One NNCS is present within 1km of the Site.

Newbridge to Fillamore County Wildlife Site (CWS) is situated 50m to the north-east of the survey Site's north and eastern boundary.

SSSI Impact Risk Zones

The proposed development is not within an area identified as a SSSI Impact Risk Zone for the type of development proposed here.

Legend

-  Development footprint
-  Survey area
-  Intact hedge, species poor hedgerow
-  Semi-improved neutral grassland
-  Arable



Title: Map 1. Phase 1 habitats

Project: Land at High Down Farm

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Date: 07/08/2023

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 the following protected species. Where there is no potential for a species or species group to be present within the site, or where habitats with the potential to support this species or species group will not be impacted by the proposals, they may be scoped out at this stage.

Table 3. Potential for protected species.

Species	Assessment	Likely value/ potential for presence
Amphibians	Habitats within the Site do not provide potential for breeding amphibians, with no ponds within 500m of the Site. Taking into account adjacent woodland and watercourse habitats, the grassland and arable Site habitats provide negligible potential for the terrestrial phase of amphibians, and they do not need to be considered further.	Negligible
Badgers	No evidence of use by badgers was found: however, there is potential for them to access the Site for foraging.	Potential
Bats	No habitats suitable for roosting bats are present within the Site footprint. The majority grassland habitat has negligible potential for foraging or commuting bats. The adjacent hedgerows and woodland edge habitats have moderate potential for commuting and foraging bats.	Negligible Negligible Moderate
Birds	The grassland and arable field provide suboptimal habitat for nesting and foraging birds, although there is potential for nesting birds to be associated with adjacent hedgerows.	Potential associated with adjacent hedgerow habitats.
Common Dormouse	Habitats within the Site do not have wooded features with potential for common dormice. The managed hedgerow adjacent to the development footprint, but within the survey area is sub-optimal for foraging and nesting dormice, with limited fruiting species, no hazel present, and regular management/disturbance. There is, however, functional linkage out to suitable woodland habitat to the north-east, with dormouse populations known to be present in the wider landscape. There is limited potential for dormice associated with this hedgerow habitat.	Negligible Limited potential (hedgerow)
Hedgehog	There is limited potential for hedgehog to be associated with habitats within and surrounding the Site.	Limited
Reptiles	The majority grassland and arable habitat within the Site has negligible potential for foraging and hibernating reptiles: however, the north-eastern hedgerow likely has low potential for foraging and potentially hibernating reptiles	Negligible
Otter	No suitable water bodies associated with the Site.	Negligible
Water Vole	No suitable water bodies associated with the Site.	Negligible
Notable invertebrates	Although habitats at this Site are likely to support common and widespread invertebrates, priority invertebrate habitats such as flushes, ponds, suitable brown-field land and soft rock cliffs are not present.	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	No plant listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) as invasive non-native with respect to England and Wales was recorded within the site.	Absent

4. Evaluation of ecological features and potential impacts

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 the 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.

4.1. 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) Regulations 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) Regulations 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.

Species-poor native hedgerow

All native hedgerow is a Habitat of Principal Importance (JNCC & Defra. 2012). Although no hedgerows are present within the Site boundary, there is potential for the hedgerow immediately adjacent to the proposed access track to be impacted during the construction phase, and mitigation is recommended.

4.2. 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) Regulations 2019. The latter consolidates amendments to the Conservation (Natural Habitats, &c) Regulations 1994 which transposed into UK Law the EU Habitats Directive.

One thousand, one hundred and fifty 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.

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.

Although no evidence of Badgers or Badger setts were present within the Site, it is likely they are present in the wider landscape and it is possible that occasional Badgers may access the Site. Although the loss of the habitats associated with the Site would not impact local Badger populations, and no Badger sett will be impacted by the proposed development, there is potential for Badgers to get trapped within the Site during the construction phase. Simple mitigation 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 2017. 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".

No trees were identified within the Site.

The majority grassland habitat within the Site has negligible value for foraging and commuting bats, with adjacent hedgerows and woodland edges providing moderate potential for foraging and commuting bats. The proposed development is unlikely to impact this habitat during the operational phase, although there may be potential impacts in relation to light-averse bats during construction, given its proximity to the Site. Mitigation in relation to the construction phase 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 considered unlikely that nesting birds will be impacted by the works on the Site, however they may be in adjacent habitats, including hedgerow habitat, and so simple mitigation is recommended.

Common dormice

Common (or Hazel) dormice, and their breeding and resting places, are protected under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017). They are identified as a European Protected Species. Under these laws, it is an offence to:

- Capture, kill, disturb or injure Common dormice (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 dormice, or parts of dormice.

Common dormice are listed as a species "of principal importance for the purpose of conserving biodiversity".

There is negligible potential for dormice to be present within the Site development footprint, as the grassland and arable habitat has negligible potential. However, there is limited potential associated with the adjacent hedgerow to the north-east: this hedgerow will be retained. There is potential for impact in association with the hedgerow during the construction phase, and mitigation is recommended.

Hedgehog

Hedgehog are protected under the Wildlife and Countryside Act, 1981 (as amended). They are identified as a Priority Species under the UK Post-2010 Biodiversity Framework and are now in the IUCN Red List for British Mammals as vulnerable to extinction.

It is possible that an occasional hedgehog might be associated with the habitats on Site and 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.

The two rare species, Sand Lizard and Smooth Snake, are given more protection that includes protection from capture and deliberate or reckless killing, injury or disturbance. Their breeding or resting places are also protected from obstruction or damage, even if it were accidental.

All six native reptiles are listed as species “of principal importance for the purpose of conserving biodiversity”.

Site habitats have potential for foraging and hibernating common reptile species.

There is some low potential for foraging and commuting reptiles along the hedgerow boundaries adjacent to the Site. There is potential for construction activities to result in the killing or injury of individuals, which may be deemed an offence under the Wildlife and Countryside Act 1981 (as amended). Mitigation may be required.

4.3. Statutory Nature Conservation Sites

Natural England has assessed the potential for various development types to impact nearby statutory nature conservation sites when they created SSSI Impact Risk Zones. The proposed development type is not of a type that Natural England judges to be a risk to statutory nature conservation sites. No mitigation is required and there is no requirement to consult Natural England on the potential impact on these sites.

Although the Site is within a Zone of Influence for Plymouth Sound and Estuaries SAC, it is not of the type that will increase recreational pressures, and no mitigation is required.

The potential for adverse effects on statutory nature conservation sites does not need to be considered further.

4.4. Non-statutory Nature Conservation Sites

One NNCS is present within 1km of the Site: Newbridge to Fillamore CWS is situated 70m to the north-east from the centre of the Site with a slight decline in height from the Site northwards. As such, there is potential for adverse impacts from construction activities to habitats and species that are features for selection of this CWS. The pathway of effect may include: adverse impacts to water resources and on nearby environmentally sensitive areas; potential negative impacts on local flora and fauna; disturbance via dust, light, vibration, noise and other related activities; pollution risks, including the risk of environmental contamination, or harm by incorrect storing, handling, using and disposing of hazardous substances; potential environmental impact of vehicles and plant equipment. Mitigation is recommended.

5. Recommendations for mitigation and further surveys

Mitigation

Where there is potential that the 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 118 of the National Planning Policy Framework and detailed 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.

5.1 Habitats of nature conservation importance

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

Species-poor hedgerow

The hedgerow habitat at the north-eastern boundary adjacent to the proposed access track should be protected from accidental damage by suitable fencing, providing a 2 metre protection zone during the construction phase. This protection zone should be maintained for the duration of the works, and include:

- A temporary fence situated along the outer edge of the protection zones, to protect the zones and the adjacent habitat, during the entire construction phase;
- No storage of machinery, chemicals or other materials, within the protection zones;

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).

- No ground disturbance or burning within the protection zones;
- No vehicles tracking across, and no vehicles parking in, these zones;
- Construction practices ensuring that no dust deposition, disturbance, noise, or pollution risks impact adjacent hedgerow habitats. This includes mitigation for light-averse wildlife species;
- Construction staff briefed during induction as to the purpose of these protection zones.

If plans change and any of this habitat is to be lost to the development, these recommendations should be revisited.

5.2. 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:

Badger

There is potential that Badgers may become trapped within any construction site during the development phase. To prevent this, the following is recommended:

- Site security fencing along the boundaries should leave a gap of at least 2 metres wide between the fence and any scrub, woodland habitat;
- Any trenches left open at night should have some means of escape for Badgers, 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 Badgers to exit the Site should they gain entry.

Bats

The Site has no habitat suitable for roosting bats and no mitigation is recommended.

The Site as a whole has limited potential for foraging and commuting bats, and it is considered that bat activity transects are not proportionate to the negligible level of risk to foraging and commuting bats posed by this development.

However, it is possible that light-averse bat species might occasionally be active along hedgerows and woodland edges adjacent to the Site.

Precautionary mitigation in relation to any external lighting and light-averse bat species should be adopted to allow them to continue to use the surrounding landscape. This should include:

- Security lighting activated by movement sensor with a time limit switch;
- Lighting designed to minimise light spill beyond the required target;
- Lighting directed into the site, away from boundary habitats, in particular away from the mature trees and hedgerows;
- Use of narrow spectrum lights with no UV content;
- Use of low level bollard lighting along the margins of any parking/turning areas;
- Use of low pressure sodium or warm white LED lights.

There is also potential that night-time works during construction could impact light-averse bat species, and the following will be adopted:

- No external night-time works will occur during the construction phase.

This mitigation is considered to be sufficient to meet the requirement of demonstrating minimal new external lighting, and avoidance of light spill onto habitats used by bats and other wildlife.

Nesting birds

The hedgerow protection measures outlined in Section 5.1 would ensure that any potential birds that may be present in the hedgerow habitat associated with the Site are not harmed.

Common dormice

Adjacent hedgerow habitat offers limited potential for foraging and commuting Dormice: there will be no loss of this habitat.

Taking into account regular agricultural operations adjacent to the hedgerow, it is considered that the use of the recommended 2m fenced protection zone for hedgerow habitat (taking into account the current use of the access track by farm vehicles) as detailed in [Section 5.1.: Hedgerow](#), during the construction phase provides proportionate mitigation against potential disturbance.

There is also potential that night-time works during construction could impact light-averse species: the mitigation recommended for bats will be adopted, with this mitigation considered to be sufficient to meet the requirement of demonstrating minimal new external lighting, and avoidance of light spill onto habitats used by light-averse species.

Hedgehog

There is potential for Hedgehogs to be active within the Site. During construction, any trenches, holes, pits or other excavations which Hedgehog could fall in to must be covered overnight or have sloped banks or ramps suitable for their escape. It is recommended that any new boundaries are designed to allow Hedgehogs free movement within the finished development.

Reptiles

Although there is limited potential for foraging and hibernating reptiles to be present associated with habitats within and bounding the Site, further survey work is not considered appropriate or proportionate, due to the limited footprint of the proposed development in relation to available habitat, and the potential to retain these animals within adjacent Site habitats.

There is also high potential for Reasonable Avoidance Measures (RAMs) to successfully ensure that no reptiles are killed or injured during development. By following simple mitigation, any adverse impact can be avoided.

RAMs should be undertaken during Site clearance and construction:

Construction in period late March to October

If construction is to occur during the reptile active season (late March to October), areas to be affected by construction activities should be de-vegetated prior to any site activities under the supervision of a suitably qualified ecologist. Any vegetation to be lost to the development will initially be strimmed to a height of no more than 20 cm (if it has grown above this height in the intervening time between PEA survey and site clearance), having first used an ecologist to walk and beat the habitat. This will encourage reptiles to disperse naturally into the neighbouring uncut vegetation, in particular to the majority retained scrub to the east of the Site. After at least 24 hours, a second cut will be made as close to ground/bank level as possible. This should ensure that any reptiles, if present, are displaced from the construction site onto suitable adjacent intact habitats.

Any reptiles found will be carefully handled and removed to suitable adjacent suitable habitat beyond the development footprint.

Following vegetation clearance, prior to and during construction works:

- All arising and/or demolition waste from vegetation and any building clearance must either be removed from the area, or placed in a skip so that it does not create further suitable habitats and shelter for reptiles.
- Any storage of building and/or hazardous materials will be stored in a way that does not provide a new refuge habitat for reptiles: that is, not on the ground, e.g. in a skip or alternative.
- During construction, any trenches, holes, pits or other excavations which reptiles could fall in to must be covered overnight, or have sloped banks or ramps suitable for their escape.
- If any reptile species is detected on site, it must be carefully picked up, placed in a clean bucket and moved to an area of suitable habitat (for reptiles, adjacent unshaded grassland edge habitat to the west, east or north, away from the development footprint).

Construction in period November to early March

Clearance of areas that may provide hibernacula (such as around the base of trees or hedgerows) should be avoided during these periods as there is unknown potential for hibernating reptiles to be present. If this is planned but unavoidable, it is recommended that vegetation to be removed is cut back to during September and October and kept close-managed to deter hibernating reptiles. Adjacent woodland and scrub habitat to the west and north will provide shelter during clearance, and hibernation habitat post-clearance.

5.3. Non-statutory Nature Conservation Sites

Newbridge to Fillamore CWS is situated 70m to the north from the centre of the Site, with a slight decline in height from the Site northwards. As such, it is recommended that a Construction Environmental Management Plan (CEMP) should be produced prior to, and adopted during, the construction phase of the development. This should be carried out

following the BSI Standards Publication: Biodiversity- code of practice for planning and development BS 42020:2013.

Mitigation for the potential adverse effects from construction practices should include (particularly taking into account the downhill position of the CWS in relation to the Site, and the presence of a stream along the northern and north-eastern-most boundaries):

- ensuring no contamination of soil or water by hazardous substances;
- ensuring no sediment is deposited outside the Site, including the reduction of dust deposition, in particular in relation to the use of site vehicles and any nearby woodland habitat to the north/north-east;
- no works undertaken outside of the approved footprint;
- ensure work occurs only during daylight hours;
- undertake appropriate storage and transport of any hazardous materials, including vehicle fuel, or any waste materials;
- ensure no spills, or leaks of fluids, fuels or oils from vehicles or plant;
- ensure vehicles and plant are parked an appropriate distance from sensitive environmental areas when not in use.

Adoption of this CEMP will ensure that this development is unlikely to impact the interest features for which this CWS has been selected.

5.4. Summary of net gains and losses

Table 3 provides a summary of net gains and losses to biodiversity resulting from the proposed development with mitigation, but without biodiversity enhancement.

Table 3. Summary of net gains and losses to biodiversity

Nature conservation feature	Potential impact	Proposed mitigation	Outcome/Comments
Hedgerow	Accidental damage during construction.	Adoption of a fenced protection zone during construction phase. If any of this habitat is to be lost, these recommendations should be revisited.	Impact minimised.
Badger	Becoming trapped within any construction site.	Access along boundaries; trenches with escape mechanisms; gaps at the corners of any security fences.	Impact avoided.
Bats (foraging and commuting)	Degraded commuting and foraging habitat due to light spill	Precautionary mitigation in relation to light-averse bats recommended.	Impact minimised.
Nesting Birds	Direct harm or injury during site clearance. Increased food items during construction.	The hedgerow mitigation will ensure to protect any nesting birds off Site within the hedgerow.	Direct harm and injury avoided Temporary positive gain
Dormice	Direct harm or injury during site clearance.	Protection of hedgerow during construction through use of a protection zone (2m for hedgerow) using suitable fencing.	Impact minimised.

	Degraded commuting and foraging habitat due to light spill.	Precautionary mitigation in relation to light-averse wildlife.	Impact minimised.
Hedgehog	Loss of commuting/foraging habitat	Mitigation during construction. Any new boundaries designed to allow hedgehogs free movement.	Impact avoided
Reptiles	Direct harm or injury	RAMS are recommended during construction phase.	Impact avoided
Newbridge to Fillamore CWS	Potential impact during construction.	Introduction and adoption of a CEMP.	Impact minimised.

6. Further survey work

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

No additional surveys are required.

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 may be 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.

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.

Following recommendations from Cornwall Council², for this development, we recommend:

- One bat box/brick/tube;
- One bird box/brick;

Bats

Bat box/brick/tubes could be fitted on a south or west facing aspect of any new build. Where practicable, on developments where only roof works are being carried out, enhancement could be a Schwegler 1FF bat box, a Beaumaris Woodstone Bat box (Figure 1), or similar. These boxes are designed to be installed on the external walls of buildings.



Figure 1. Schwegler 1FF bat box (left) and Beaumaris bat Box (right)

² <https://www.cornwall.gov.uk/media/v1roqk0x/planning-for-biodiversity-v14.pdf>

Enhancement could also comprise a Green & Blue Bat Block bat brick or similar (Figure 2). These boxes are designed to be recessed into the external walls of buildings and can be rendered over.



Figure 2. Green & Blue Bat Block bat brick

Where fitting enhancement to the building is not practicable, new roosting opportunities could be created for bats using a WoodStone/WoodCrete box such as the Vivara Pro WoodStone Bat Box (Figure 3). Bat Boxes should be secured to trees or untreated wooden posts (the base of the posts may be treated) at least 3 metres above the ground.



Figure 3. Vivara Pro WoodStone bat box.

Bird boxes

New nesting opportunities should be provided for birds on the Site, through the provision of bird nesting boxes: dependent upon the building materials to be used, this could include a WoodStone open-fronted nest box (Figure 4) fitted to the new build. These boxes are built from a robust material that are guaranteed for 10 years, and safeguard against attacks from predators, whilst providing a well-insulated interior. Nesting sites for cavity-nesting birds have become rare due to changes in woodland management practices, and these nest boxes provide much-needed space for the rearing of chicks, and for birds that are roosting overwinter.

These open nest boxes are suitable for a range of birds, including spotted flycatchers, pied and grey wagtails and song thrushes. The best height is between 1.5m and 3m high from the base of the tree, and sited in undergrowth where possible (text taken from NHBS website).



Figure 1. Vivara Pro Barcelona WoodStone Open Nest Box.

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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 (Amendment) (EU Exit) Regulations 2019

This amendment of the Conservation of Habitats and Species Regulations 2017 consolidate and update the Conservation of Habitats and Species Regulations 2010, and transpose 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.

The objectives of the Habitats Directive is to protect biodiversity through the conservation of natural habitats and species of wild fauna and flora. The Directive lays down rules for the protection, management and exploitation of such habitats and species.

The Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species. These sites form a network termed Natura 2000 and include Special Areas of Conservation and Special Protection Areas.

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, 2012](#)

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.