PRELIMINARY ECOLOGICAL APPRAISAL OF:

PENOLD
CHURCH STREET
ST MARY'S
ISLES OF SCILLY
TR21 0NA

Client: Ian Sibley

Our reference: BS44-2021

Report date: 29th April 2021

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Report peer reviewed: Sarah Mason

Report signed off: Sarah Mason

REPORT ISSUED IN ELECTRONIC FORMAT ONLY

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Contents

Non-technical Summary

- On 29th April 2021, Isles of Scilly Wildlife Trust (IoSWT) conducted a Preliminary Ecological Appraisal (PEA) of Penold, Church Street, St Mary's, Isles of Scilly, TR21 0NA (BS44-2021), to assess the suitability of the site to support notable habitats and protected species and assess the biodiversity value of the site.
- The habitats on site are assessed as being of **moderate** ecological value.
- The property was deemed as having **negative** bat roost potential.
- The property was deemed to have **high** ecological value for breeding birds.
- The property was deemed to have **moderate** ecological value for reptiles and amphibians.
- The property was deemed to have **low** ecological value for invertebrates.
- No additional surveys are recommended.
- Due to the nature of the proposal, mitigation will be required to minimise the low risk that bats and breeding birds may be present during phases of the work and/or time of the year.
- A net gain in biodiversity is possible on this site if **a stand-alone bat box is erected at the apex of the south-east gable end of the property.**
- If works have not been completed by December 2021, it is recommended that this ecological appraisal is updated.
- **This report is sufficient to support a planning application.**

1.0 Introduction

1.1 Survey and reporting

This report details the results of a preliminary ecological appraisal (PEA) of Penold, Church Street, St Mary's, Isles of Scilly TR21 0NA, National Grid Reference SV9088010331 (see Figure 1.). The survey, carried out on 29th April 2021, was undertaken to assess the suitability of the development to support notable habitats and protected species and assess the biodiversity of the site.

1.2 Aims and Scope of the report

This report is a Preliminary Ecological Appraisal (PEA). According to the Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines, a PEA "*can be used as a scoping report (for non-Environmental Impact Assessment (EIA) projects) but should not be submitted as part of a planning application unless it can be determined that the project would have no significant ecological effects, no mitigation is required, and no further surveys are necessary.*"[1]

This report is based on a desktop study and rapid on-site assessment aimed at assessing the suitability of the site to support notable habitats and protected species. This report will assess the compliance of the scheme with relevant local and national planning policy and will provide an initial assessment of the biodiversity value of the site to be made, identifying the likely ecological constraints associated with the project and identifying any mitigation measures likely to be required following the '*Mitigation Hierarchy*'[2]. Any additional surveys that may be required to inform an Ecological Impact Assessment (EcIA) will be identified, as will any opportunities to deliver ecological enhancement.

1.3 Site Setting and Description

Penold is situated in the Isles of Scilly National Character Area (NCA), described by Natural England as follows[3]; "*The Isles of Scilly comprise over 200 granite islands scattered across 200 km2, set out in the Atlantic some 45 km south-west of Land's End. Of these islands only five are currently inhabited, namely the islands of St Mary's, St Agnes, St Martin's, Tresco and Bryher. The occupied islands cover a total area of just over 14 km^2. The islands contain 26 Sites of Special Scientific Interest and one Special Area of Conservation (SAC), designated for a range of geological and biological features, including maritime heathland and grassland, as well as one Special Protection Area and Ramsar site, highlighting the important seabird colonies. The marine environment between and around the islands is designated as an SAC and a Marine Conservation Zone for the wealth of marine species it supports, from diverse rocky reef*

to grey seals that breed around the islands. For such a small land area, the islands display a striking diversity of landscape, including lowland heath and small pastures enclosed by stone walls and banks, plus tiny-hedged bulb fields and a varied coastline. Many of these features have been in place for 4,000 years, and still retain their original purpose. Harsh conditions created by the maritime climate mean that woodland cover is minimal. It is a landscape rich in history, with 900 historic monuments. The most notable features are the outstanding prehistoric monuments of chambered barrows and standing stones of the late Neolithic and early Bronze Age. The entire NCA has been designated as an Area of Outstanding Natural Beauty (AONB) and is recognised as a Heritage coast.

Figure 1 Site Location

Penold is located on the very south-east boundary of the Built-Up Areas Boundaries[2] (2011) for England and Wales (published by the Office for National Statistics, Geography, set back off Church Street. Penold is a semi-detached property set within its own large grounds, which includes several large, detached outbuildings. Penold is the last development before entering the less densely populated Old Town. The

development is approximately 183 sq. metres in size, within a plot of approximately 1,750 sq. metres. The property has an approximate south-east/north-west aspect.

1.4 Site proposals

This report is provided in advance of a planning application which proposes to undertake a full re-roofing of the property, including 2 fibre-glass roof extensions and the refurbishment of 2 dormer windows.

2.0 Methodology

2.1 Zone of Influence (ZoI)

The ZoI is the area encompassing all predicted negative ecological effects from the proposed scheme and is informed by the habitats present within the site and the nature of the proposals. Due to the scale and nature of the proposals it is considered that a ZoI of 1km from the centre of the site is appropriate for the gathering of information for the desk study.

2.2 Desk Study

A full biological record centre desktop study was undertaken for the presence of bats but was not taken for the remaining assessment of the development, as it was not considered necessary given the limited scale of impacts and the nature of the on-site and surrounding habitats. The desk study also included accessing the Multi-Agency Geographic Information for the Countryside (MAGIC)[4] database in order to establish the presence of statutory designated sites, including all internationally and nationally designated sites such as Special Protection Areas (SPAs), Special Areas of Conservation (SACs), Ramsar sites and Sites of Special Scientific Interest (SSSIs) within 1km of the site.

Other resources used were aerial photography to identify the presence of habitats such as woodland blocks, watercourses and hedgerows in close proximity to the site. This assists in the assessment of the potential of the site and its surrounding habitat to support protected species.

2.2.1 Habitats

An assessment was made of all areas of vegetation within the site based on the standardised UKHab survey methodology[5]. This involved a walkover survey to identify broad vegetation types, which were then classified against UKHab habitat types, where appropriate. A list of characteristic plant species for each vegetation type was compiled and any invasive species[6] encountered as an incidental result of the survey are noted.

2.2.2 Bats

An assessment was made of the suitability of the building up to the site boundary to support roosting bats based on the presence of features such as loose or missing tiles, lifted lead flashing for buildings and holes. An assessment was made of the suitability of the site and surrounding landscape to support foraging and/or commuting bat species. This survey confirmed to current Bat Conservation Trust (BCT) guidelines[7].

2.2.3 Birds

The assessment of breeding and wintering birds on the site was based on the suitability of habitat present, evidence of nesting such as old or currently active nests and the presence of bird species that may potentially nest within the available habitat.

2.2.4 Reptiles/Amphibians

The reptile survey was based on an assessment of the suitability of habitat present within the site to support a population of reptiles. Reptiles particularly favour scrub and grassland interfaces and the presence of these is a good indication that reptiles may be present on site. In addition, reptiles are known to utilise features such as bare ground for basking, tussocky grassland for shelter and compost heaps and rubble piles for breeding and/or hibernating.

2.2.5 Invertebrates

An assessment was made of the site for its potential value to support diverse communities of invertebrates. The assessment was made based on the presence of habitat features which may support invertebrate communities. These features include: an abundance of dead wood, the presence of diverse plant communities, the presence of varied woodland structure, sunny woodland edges, presence of ponds and water courses and free-draining soil. At the time of the survey no attempt was made to identify species present and where a site supports features that may be of importance to invertebrates then further surveys (Phase 2) may be required to assess the importance of the site.

2.3 Preliminary Ecological Appraisal Limitations

Ecological surveys are limited by factors which affect the presence of plants and animals such as the time of year, migration patterns and behaviour. Therefore, the field survey has not produced a complete list of plants and animals and in the absence of evidence of any particular species should not be taken as conclusive proof that the species is not present or that it will not be present in the future. The survey was undertaken at a time of year when many species of plant and animal are either dormant, not visible above ground or simply not present in the UK (such as migratory birds). Therefore, the survey was based upon an assessment of the habitat present on site and the suitability of this habitat to support protected species.

2.4 Initial Protected Species Assessment

As part of a PEA, the assessment criteria are based on the potential for the site to support the species considered, this is usually based on habitat features, their suitability for the species and the results of any desk study data obtained as part of the appraisal. In many cases Phase 2 surveys will be required to assess the status of species and hence the importance of a population at a site. Therefore, the assessment should be considered a provisional assessment. Tables 1 and 2 below define the criteria used to assess the potential of the site to support protected species.

2.5 Criteria used to Assess Ecological Value

The ecological values provided within this report are based around both the professional judgement of the author of this report and current published relevant guidance, including information sources such as "*A Nature Conservation Review*[8]*"* and *"Guidelines for Ecological Impact Assessment in the United Kingdom*[9]*."*

Table 1 – Description of the categories used to classify a building's bat roost potential and the survey effort required to determine the likely presence or absence of bats

	Roost status	Description	Survey effort required to determine the likely presence or absence of bats
Bat Roost Potential	High	Numerous features potentially suitable for use by roosting bats, optimal or good quality bat foraging habitat nearby and good habitat connectivity. Alternatively, a building with fewer features potentially suitable for use by roosting bats and optimal foraging habitat nearby.	Three dusk emergence and/or pre-dawn re-entry surveys between May and September. Optimum period May – August. Two surveys should be undertaken during the optimal period and at least one survey should be a pre-dawn survey.
	Moderate	More than a few features potentially suitable for use by roosting bats, good foraging habitat nearby and limited habitat connectivity. Alternatively, a building with a few features potentially suitable for use by roosting bats but optimal foraging habitat nearby.	Two or three dusk emergence and/or pre-dawn re-entry surveys between May and September (but only if features will be affected by the proposals).
	Low	Only a few features potentially suitable for use by roosting bats but good bat foraging habitat nearby. Alternatively, a building with more than a few features potentially suitable for use by roosting bats but sub-optimal foraging habitat nearby and limited habitat connectivity.	One or two dusk emergence and/or pre-dawn re-entry surveys between May and September (but only if features will be affected by the proposals).
	Negligible	Very few features potentially suitable for use by roosting bats and / or in an area (such as a densely populated urban area) which has limited habitat connectivity and poor foraging habitat.	No further surveys required.

Table 1. Categorising and classifying a building's bat roost potential

7 Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust

Table 2 – Description of the categories used to classify a sites potential and the survey effort required to determine the likely presence or absence of a protected species or protected group of species

Potential	Description	Survey effort required to determine the likely presence or absence of the species
High	On site habitat is of high quality for a species or species group. The site is within or near a geographic stronghold. Good quality surrounding habitat and good connectivity.	If species are likely to be affected by the proposals, further Phase 2 surveys will be required to establish the presence/likely absence of the species.
Moderate	On site habitat is of moderate quality, providing most of the species/species group requirements. Limiting factors may include small habitat area or disturbance	If species are likely to be affected by the proposals, further Phase 2 surveys will be required to establish the presence/likely absence of the species.
Low	On site habitat is of poor to moderate quality for the species or group. Presence cannot be discounted on the basis of distribution, isolation or surrounding habitats etc.	If species are likely to be affected by the proposals, further Phase 2 surveys will be required to establish the presence/likely absence of the species.
Negligible	Site includes very limited or poor quality habitat for the species or group. Surrounding habitat is unlikely to support wider populations.	Further Phase 2 surveys are unlikely to be required as species is unlikely to be present

Table 2. Categorising and classifying a sites protected species potential

3. Results

3.1 Surveyor Details

The survey was undertaken by Darren Mason BSc (Hons) of the Isles of Scilly Wildlife Trust. Darren has undertaken professional Bat Licence Training and holds a Natural England WML-A34-Level 2 (Class 2 License); registration number: 2020-46277-CLS-CLS which permits him to survey bats using artificial light and endoscopes and capture bats using hand and hand-held static nets.

3.2 Desktop Study

3.2.1 Statutory Designated Sites

There are two statutory designated sites of conservation importance situated within a 1km radius of the site. Details of these designations are provided below. For further information on statutory designated sites please see Appendix 2.

i.) **Lower Moors SSSI –** Situated 268m north-east of Penold is Lower Moors SSSI. A topogenous mire that has a range of wetland habitats supporting a diverse range of wetland wildflower species, including the Nationally Scarce Tubular Water-dropwort (*Oenanthe fistulosa*). The site also holds locally important populations of Royal Fern (*Osmunda reglis*) and Southern Marsh Orchid (*Dactylhoriza praetermissa*) and is particularly important feeding for passage and wintering birds including Corncrake (*Crex crex*) and Spotted Crake (*Porzana porzana*).

ii.) **Peninnis Head SSSI –** Lying 776m south east of the proposed development is Peninnis Head SSSI. The site designated primarily for its maritime heathland, maritime grassland and scrub habitats together with good populations of a number of rare plant and lichen species, in addition to its significant quaternary geomorphology.

iii.) **Higher Moors & Porth Hellick Pool SSSI –** 1.9km east north-east of the proposed development is Higher Moors SSSI. A topogenous mire designated for several rare and notable plant species) including Bog pimpernel (*Anagallis tenella*), Star Sedge (*Carex echinata*) and Marsh St John's-wort (*Hypericum elodes*).

3.3 Habitats

The vegetation within the site is described here in general terms using UKHab habitat survey terminology and refers to dominant, characteristic and other noteworthy species in each vegetation type within the survey area. The habitat types on site consist of:

- g3c – other neutral grassland.
- h2b – other hedgerow
- s2a – Drystone wall
- u1 – built up areas and gardens.
- u1b5 – buildings

3.3.1 g3c – other neutral grassland

Two small fields immediately to the north-east (rear) of the property contained species consistent with under-managed neutral grassland (see Photo 1.). Grass species included frequent Red Fescue (*Festuca rubra*) and Cock's-foot (*Dactylis glomerata*), with occasional Common Bent (*Agrostis capillaris*) and Sweet Vernal-grass (*Anthoxanthum odoratum*). Wildflowers included rare Bulbous Buttercup (*Ranunculus bulbosus*) and Yarrow (*Achillea millefolium*), with occasional Ribwort Plantain (*Plantago lanceolata*) and Common Cat's-ear (*Hypochaeris radicata*). Signs of under management included encroachment by species such as Hogweed (*Heracleum sphondyllum*), Bracken (*Pteridium aquilinum*), Bramble (*Rubus fruticosus agg.*) and Narcissi (*narcissi sp.*), suggesting possible previous cultivation or consistent with being used as areas to compost garden waste as other non-native and naturalised species including Bear's-breeches (*Acanthus mollis*), Hybrid Bluebell (*Hyacinthoides hispanica x non-scripta*) and Three-cornered Leek (*Allium triquetrum*) were also present. Species typical of disturbed ground or increased nutrient status were also present and included Perennial Sow Thistle (*Sonchus arvensis*), Spotted Medick (*Medicago arabica*), Scarlet Pimpernel (*Anagallis arvensis*), Common Nettle (*Urtica dioica*), Cleavers (*Galium aparine*) and Bindweed (*Convolvulvus* arvensis) rare Common Vetch (*Vicia sativa*) and a Tare species (*Vicia sp.*).

3.3.2 h2b – other hedgerow

A mature, non-native hedgerow is present along north-west boundary separating the driveway of the development with the adjacent property (see Photo 2.). The hedge is well-maintained and consists predominantly of Karo (*Pittosporum crassifolium*) with rare Tree Bedstraw (*Coprosma repens*). The hedge has a small border dominated by African Lily (*Agapanthus africanus*), with rare Bigleaf hydrangea (*Hydrangea macrophylla*), African Daisy (*Osteospurnum sp.*) and Tutsan (*Hypericum androsaemum*).

Photo 1. Other neutral grassland and drystone walls

Photo 2. Other hedgerow

3.3.3 s2a – drystone wall

The northern, eastern and part of the western boundaries of the development consist of drystone wall, along with 2 further internal drystone walls, the first separating the formal rear garden from the fields to the north-east and the second being the boundary that creates the two smaller fields. These walls are predominantly covered in vegetation in particular Ivy (*Hedera helix*), Honeysuckle (*Lonicera pericyclamen*) and Bracken (see Photo 1.). Some of the exposed granite blocks are covered with saxicolous lichens including *Flavoparmelia caperata*, *Parmotrema perlatum* and *Parmelia saxatalis.*

3.3.4 u1 – built up areas and gardens

The garden is situated to the rear of the development and is laid predominantly to lawn, dominated by *Hypnum and Eurhynchium* sp. of moss, with occasional tussocks of Cock's-foot, Broad-leaved Plantain (*Plantago major*), White Clover (*Trifolium repens*), Daisy (*Bellis perennis*), Common Dog-violet (*Viola riviniana*) and rare Creeping Cinquefoil (*Potentilla reptans*). One mature Monterey Cypress (*Cupressus macrocarpa*) and Monterey Pine (*Pinus radiata*) are present at the south-east and north-east corners of the property, along with two small standards of Apple (*Malus* sp.) which are found along the north-east boundary with smaller shrub species including Karo, Cabbage Palm (*Cordyline* australis), Castor Oil Plant (*Ricinus communis*), Silver-bush Everlastingflower (*Helichrysum petiolare*), African Lily (*Agapanthus africanus*), Buddleia (*Buddleia davidii*) Giant Herb Robert (*Geranium maderense*), Bamboo (*Bambusoideae* sp.) French Lavender (*Lavandula stoechas*) the latter three planted within a large 'rockery' adjacent to the boundary wall separating the garden from the smaller fields immediately to the east (see Photos 3.).

Photo 3. rear garden

3.3.4 u1b5 – buildings

The buildings comprise the main semi-detached dwelling (described in section 3.4) and a group of outbuildings immediately north-west of the property. These buildings comprise of two single garages and associated storage along with an old flower store. Block built in construction with pent style roofs in a combination of corrugated roof sheeting and opaque plastic sheeting of varying pitch and aspect (see Photo 4.).

Photo 4. outbuildings

3.3.5 Summary

The development comprises a semi-detached property with an extensive formal and informal garden adjacent to a large semi-natural neutral grassland paddock. The most significant habitat feature is the under-managed neutral (semi-improved) grassland, which does not contain any rare or notable species. However, in conjunction with larger neutral grassland meadow immediately to the east of the property, the structure (in terms of height and species) of the rear garden and the vegetated drystone wall boundaries which link the wider the countryside the site is assessed as being of **moderate ecological value**.

For the location of all the habitat types please see the UKHab map in Appendix 1.

3.4 Bats

The work proposed is to re-roof the building, including the re-roofing of the two flat, fibre-glassed roof extensions and the refurbishment of two large, flat-roofed dormer windows. Throughout, the building presented with little, or no gaps, crevices or holes in the areas of the proposed works. None of the fibre cement tiles were missing and were tightly bound to each other; the glazed concrete ridge tiles were well attached with no obvious mortar missing. The flashing around the base of dormer windows and the chimney was well fitting and not raised. The vertical hanging fibre cement tiles on each aspect of the dormer windows were in the same condition as those of the roof. The fenestration presented with no gaps between the window frames and the buildings structure and the modern UPVc fascia and soffit boards were tightly bound to the eaves and their respective elevations. The modern fibre-glass roof presented with no cracks or holes, as did the render on the chimney (See photo 5.).

Beyond the building, the habitat quickly becomes optimal for bats, as due to the Elm woodland to north of the property which links to the wetland at Lower Moors. From here the patchwork mosaic of small fields bounded by hedgerows provides suitable commuting and foraging habitat for more than 2km in most directions. However, it must be noted that on a small island links to the wider countryside are easily reached.

In summary, the building and the proposed development has negligible features suitable for use by roosting bats, in particular crevice-dwelling species of the pipistrellus genus. In contrast, the outbuildings provide numerous features that bats could use to roost or utilise as a night roost, but these buildings do not form part of the current proposed works. Beyond the proposed development the habitat becomes more favourable for foraging and commuting bats, providing links to the wider countryside. Overall, the site is assessed as being of **negligible roost potential**.

Photo 5. North-east elevation

3.5 Birds

During the survey Blackbird (*Turdus merula*) and Song Thrush (*Turdus* philomelos) were recorded feeding on the lawn of the rear garden, whilt Dunnock (*Prunella modularis*) and House Sparrow were recorded singing and foraging within the Ivy of the drystone walls. The survey revealed no active or used nests, in or around the proposed development, but the outbuildings, the vegetated drystone walls and the associated low-lying scrub in the two smaller fields to the rear provide suitable nesting habitat, whilst the variety of shrubs, scrub and grassland supports ample feeding opportunities for several resident species of bird. Overall, the property is considered to have **high potential** for supporting nesting birds,

3.6 Reptiles/amphibians

The garden comprises of several drystone walls, compost heaps, habitat piles and 'tussocky' grassland which provides ample opportunities for hibernating amphibians. In conjunction with the property being well- linked to wider countryside and in particular the wetland of Lower Moors 268m to the north, the property is considered to have **moderate potential** to support over-wintering amphibians.

3.7 Invertebrates

The garden provides a variety of plants and shrubs attractive to a wide range of invertebrates whilst the drystone walls, bare ground and tussocky grassland provide suitable habitat for invertebrates to nest, or over-winter within. However, no important food plant or rare or notable species, or species assemblage of terrestrial invertebrates were recorded. Therefore, the site is considered to offer **low potential** for supporting any rare or scarce species or species assemblage of invertebrate.

4. Planning Policy Context

4.1 Planning Policy

4.1.1 National Policy

The National Planning Policy Framework (NPPF)[10] sets out the government's requirements for the planning system in England. A number of sections of the NPPF are relevant when taking into account development proposals and the environment. As set out in within Paragraphs 7 to 10 of the NPPF "*the purpose of the planning system is to contribute to the achievement of sustainable development.*" The general impetus of the NPPF in relation to ecology and biodiversity is for development proposals to not only minimise the impacts on biodiversity but also to provide enhancement. Paragraph 170 states that "*Planning policies and decisions should contribute to and enhance the natural and local environment and minimise impacts on and providing net gains for biodiversity.*" A number of principles are set out in Paragraph 175 including the principle that where harm cannot be adequately avoided then it should be adequately mitigated, or, as a last resort, compensated for.

In addition to the NPPF, the Office of the Deputy Prime Minister (ODPM) circular 06/05[11] provides guidance on the application of law relating to planning and nature conservation as it applies in England. Paragraph 98 states "*the presence of a protected species is a material consideration when a planning authority is considering a development proposal, that if carried out, would be likely to result in harm to the species or its habitat.*" Whilst Paragraph 99 states "*it is essential that the presence or otherwise of a protected species, and the extent that they may be affected by the proposed development, is established before planning permission is granted.*"

4.1.2 Local Policy

Local planning policy with the Isles of Scilly Council is provided by the current Local Plan 'A 2020 Vision.' A single over-arching policy within this document makes specific reference to environmental protection.

Policy 1 – Environmental protection

- *Protect a statutorily-protected plant or animal species and the wildlife, geological and geomorphological interest and features of designated Sites of Special Scientific Interest; and locally important biodiversity habitats, species and landscape features;*

5. Evaluation, Potential Impacts and Recommendations

5.1 Site Evaluation

The site is approximately 1750 sq metres in size and comprises a semi-detached dwelling on the very edge of Hugh Town, with a garden linking directly to the wider countryside. No protected species or habitat would be affected by the proposed development, but the varied structure of the garden and its boundaries, the natural features and vegetative structure of the two smaller fields to the north-east and the field immediately to the east of the property provide suitable habitat for a range of species. Therefore, the site is assessed as being of **medium ecological value**.

5.2 Summary of Potential Impacts

The proposed development comprises the re-roofing of the dwelling, including two flat, fibre-glass roofs and the refurbishment of two dormer windows. In the absence of mitigation, the potential ecological impact of these works are:

- A very low risk of disturbing bats during the demolition phase of the building work on all the roofs.

5.3 Summary of Key Recommendations

The following recommendations have been designed to minimise the potential impacts and enhance the site for wildlife:

- Work ideally should take place between 1st March and 1st May or 31st October and the 31st January inclusive.
- If not possible, then avoidance measures to minimise the risk of disturbing bats during the demolition phase should be undertaken (See Appendix 2 for avoidance measures).
- If work were to commence between March and August inclusive, the proposed development would need to be checked first for nesting birds and if, any evidence of breeding activity was found, or

nests are identified works that would disturb the adults, the nest or young must be postponed until all young have fledged the nest and it is no longer in use.

- Undertake enhancement measures to meet NPPF net gain in biodiversity principles by installing 1 stand-alone bat box at the apex of the south-east gable end of the property.

5.4 Evaluation Against Relevant Planning Policy

Given the impacts identified and the subsequent recommendations made it is considered that the proposals will accord with all relevant national and local planning policy in relation to ecology (see Section 4). Providing there is scope within the proposals to support the necessary mitigation for roosting bats.

Ecological Feature	Summary	Potential Impacts of the Development	Recommendations
Designated Sites	3 Isles of Scilly SSSIs	There are no anticipated impacts associated with designated sites.	There are no recommendations to be made in respect to designated sites.
Vegetation	The site comprises of a landscaped garden and two semi-natural neutral grassland fields and is deemed as having **moderate ecological value.**	There are no anticipated impacts associated with vegetation from the proposed development.	There is opportunity to improve the condition of the semi-natural neutral grassland by mowing twice a year (March and September) and removing the arisings after mowing
Bats	The site has no features suitable to host roosting bats, with Despite having links to the wider countryside and optimal foraging habitat the development is deemed to have **negligible bat roost potential**	Re-roofing of the property and refurbishment of the dormer windows may lead to the disturbance of bats or may cause harm to roosting bats.	Avoidance measures (see Appendix 2) should be undertaken during the demolition phase of the works. Install 1 stand-alone bat box at the apex of the south-east gable end of the property.
Birds	The site has been assessed as having **high potential** to support nesting birds.	There are no anticipated impacts associated with breeding birds from the proposed development.	If during the months of March to August inclusive evidence of nesting birds is found (nests, nesting birds or young) work should stop until all breeding activity is over. Retain Ivy on the drystone walls to provide suitable nesting habitat. Maintain mowing on formal lawns and scrubby edges to the two smaller fields to provide varied feeding habitat.
Reptiles/Amphibians	The drystone walls, compost heaps, habitat piles and the tussocky semi-natural grassland has the potential to support hibernating amphibians, whilst the disturbed ground and scrubby edges to the two smaller fields provide suitable feeding habitat and is assessed as having **moderate** potential to support reptiles/amphibians	There are no anticipated impacts associated with reptiles and amphibians.	Maintain the drystone walls, scrubby edges and some tussocky grassland to maintain suitable feeding and hibernating habitat.
Invertebrates	The site is assessed as having **low potential** to support any rare or notable invertebrate species or species assemblages	There are no anticipated impacts associated with rare or notable invertebrates.	There are no recommendations to be made in respect of invertebrates

Table 4. Potential impacts and recommendations

5.5 Updating Survey

If the works have not commenced by December 2021, it is recommended that this PEA is updated. This recommendation is made as many of the species considered during the current survey are highly mobile and the ecology of the site is likely to change over a two-year period. Similarly, if the planning application boundary changes or the proposals of the site alter, a re-assessment of the impacts may be required.

6.0 Conclusion

Penold is a semi-detached property, with extensive outbuildings and rear gardens. The immediate habitat surrounding the proposed development has been assessed as having moderate ecological value.

The property has been assessed for its bat roost potential and has been categorised as having negligible potential to host roosting bats in its current state. Avoidance measures should be undertaken during the demolition phase of works to minimise the risk of disturbing or causing harm to bats if they were to be found (see Appendix 1). **The site does have the potential to provide a net gain in biodiversity, in keeping with national and local planning policy, via the erection of a stand-alone bat box at the apex of the gable end of the south-east elevation**. Other than bats no impact on vegetation, reptiles/amphibians and invertebrates is anticipated.

7. Bibliography

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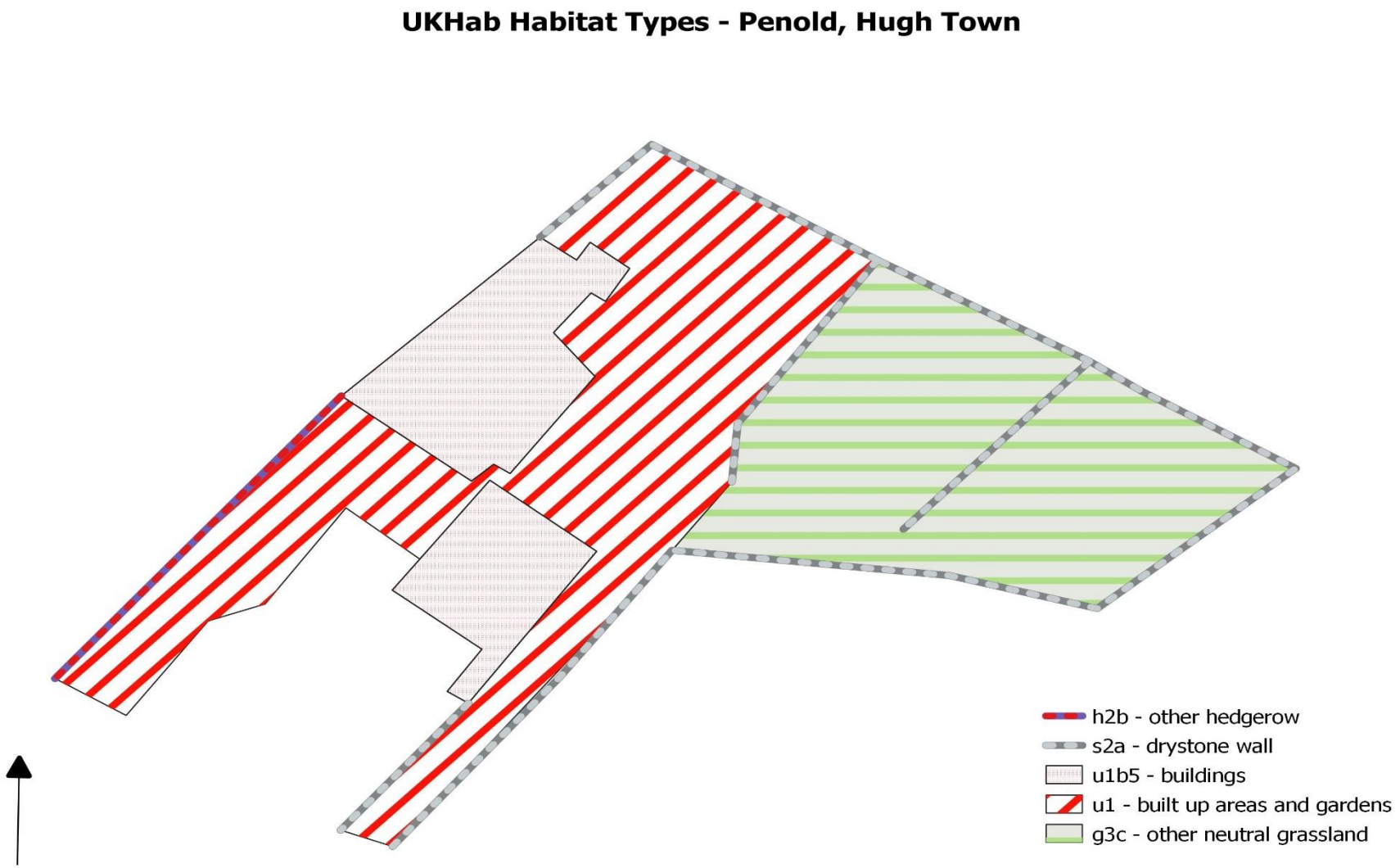
11. Office of the Deputy Prime Minister. (2005). *Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System.* ODPM Circular 06/2005

APPENDIX 1 – UKHab habitats



APPENDIX 2

Avoidance Measures – Bats

i. When roofing works are planned these should avoid the main breeding and mating season of *Vespertilionidae* bats, **work should typically take place between the 1st November and 1st May inclusive.**

ii. Ensure all workers on site (including sub-contractors) are made familiar with bat legislation and agree to work in accordance with and fully follow best practice measures.

iii. Carry out prior to demolition careful checks of any cracks/crevices and cavities in or on the building. Signs of usage include; bat droppings, dis-colouration or polishing of access points where bats rub against them, urine stains and a lack of cobwebs, particularly if other crevices around them have plenty.

iv. Individual bats may be found in/under; cladding, between timber boards, between corrugated sheeting, in soffit boxes, behind lead flashing and sometimes just clinging to timber beams around joins as well as other areas. When any of these are removed, please do so carefully, lifting outwardly, and checking for bats continually. If in doubt, consult a licensed bat worker.

v. Try to minimise any dust generated from demolition works from entering off-site buildings and gardens

vi. In the unlikely event that a bat is found please see below:

1. At no point should a worker handle a bat. Untrained handling may cause undue stress and injury to the bat, and if bitten may expose the worker to rabies-related European Bat Lyssavirus
2. Where possible replace any covering without damaging the bat, then halt works and contact **Natural England** (Tel: 0845 601 4523), or the **Bat Conservation Trust Helpline (**0845 1300 228), or **IoSWT** (01720 422153) for advice.
3. Any bats that go to ground should be covered with a box and left alone until a licensed bat worker arrives to assess the condition of the bat
4. If the bat attempts to fly at any point allow it to do so. Preventing natural behavior will cause unnecessary stress and may cause injury. Attempt to see where bat goes. If the bat returns to the building, halt works and report the escaped bat to the local bat worker