



## Preliminary Ecological Appraisal (PEA)



Men-a-Vaur  
Church Road  
St. Mary's  
Isles of Scilly  
TR21 0NA

GR: SV 90665 10484  
Date: November 2019



- 1. Contract Details .....3
- 2. Non-technical Summary .....5
- 3. Introduction .....8
  - 3.1 Survey Aims.....8
  - 3.2 Site Location and Size .....8
  - 3.3 Proposed Development.....9
- 4. Figure 1. Site Location Map..... 10
  - Figure 2. Proposed Development Plan..... 11
- 5. Methodology ..... 12
  - 5.1 Desktop Survey ..... 12
  - 5.2 Field Survey ..... 12
  - 5.3 Survey Constraints ..... 12
  - 5.4 Assessment..... 13
- 6. Results/Baseline Ecological Conditions..... 17
  - 6.1 Designated Sites..... 17
  - 6.2 Habitats..... 18
    - Table 1. Phase 1 habitats associated with the site, their extent and value in a geographical context. .... 18
    - Figure 3. Extended Phase 1 Habitat Survey Map..... 19
    - Semi-natural Broadleaved Woodland ..... 20
    - Trees (free-standing)..... 20
    - Amenity Grassland..... 22
    - Abandoned Garden..... 23
    - Ornamental Hedge ..... 25
    - Wall / Fence..... 26
    - Buildings..... 27
    - Other Habitats ..... 28
  - 6.3 Species ..... 28
    - Bats..... 28
    - Lesser White-toothed Shrew (*Crocidura suaveolens*)..... 29
    - Birds ..... 30
    - Invertebrates ..... 31
    - Vascular Plants ..... 32
    - Invasive Non-native Species ..... 32
- 7. Biodiversity Mitigation and Enhancement Details ..... 34
  - 7.1 Removal of Invasive, Non-native Species ..... 34
  - 7.2 Removal of Dumped Rubbish/Garden Waste ..... 34
  - 7.3 Soft-felling of the Ivy-clad Pear Tree ..... 35
  - 7.4 Removal of Woody Species, along with the Greenhouse and Shed ..... 35
  - 7.5 Construction Exclusion Zone ..... 35
  - 7.6 Covered Trenching and Capped Pipework ..... 36
  - 7.7 Artificial Lighting Strategy ..... 36
  - 7.8 Planting of New Trees ..... 36
  - 7.9 Hedge Planting ..... 36
  - 7.10 Bat Roosting Provision..... 37
  - 7.11 Bird Nesting Provision ..... 37
  - 7.12 Solitary Bee Provision..... 38



7.13	Landscaping for the Benefit of Wildlife .....	39
8.	Conclusions .....	40
9.	References .....	41
	Data Search Websites .....	43
10.	Appendices.....	44
	Appendix A. Flora Species Recorded Onsite .....	44
	Appendix B. Summary of the Legislation and Policy.....	46
	Appendix C. Optimum Protected Species Survey Times .....	50
	Appendix D. Assessing the Potential Value for Buildings for Roosting Bats.....	52
	Appendix E. Bat Activity and Bat Emergence Survey Information.....	54
	Appendix F. Wildlife Crime .....	58
	Appendix G. Habitats Regulation Assessment (HRA) .....	59
	Appendix I Ecological Constraints and Opportunities Plan .....	60

## 1. Contract Details

<b>Preliminary Ecological Appraisal: Extended Phase 1 Ecology Survey</b>	
<b>Grid Reference:</b>	SV 90665 10484
<b>Client:</b>	Selleck Nicholls Homes
<b>Architect/Planning Consultant:</b>	Selleck Nicholls Homes
<b>Date of Survey:</b>	15/11/2019
<b>Date of Report:</b>	21/11/2019
<b>Report Reference:</b>	PEA_MenAVaur_SelleckNichollsHomes_Nov2019
<b>Associated Reports Reference:</b>	N/A
<b>Workflow Number</b>	2019272
<b>Surveyor(s):</b>	Sarah Board BSc (Hons), MSc, MCIEEM
<b>Author:</b>	Sarah Board BSc (Hons), MSc, MCIEEM
<b>Verified by:</b>	Paul Diamond RHS Cert (Hort), BSc (Hons), MSc, MCIEEM, MArborA Licentiate Member of the Landscape Institute
<b>Revision no:</b>	01
<b>Issue date:</b>	09/12/2019
<b>Ecological Surveys Ltd Registered Address:</b>	14, Lower Clicker Road, Menheniot, Liskeard. Cornwall. PL14 3PJ
<b>Tel:</b>	(01503) 240846 / 07736 458609
	<a href="mailto:help@ecological-surveys-ltd.co.uk">help@ecological-surveys-ltd.co.uk</a> <a href="http://www.ecological-surveys-ltd.co.uk">www.ecological-surveys-ltd.co.uk</a>
<b>Company Registration Number:</b>	Incorporated in England and Wales- No: 08262426.
<b>VAT Registration Number:</b>	224 3182 38

### 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, unless specifically stated otherwise.

### 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, unless the site has been maintained in exactly the same condition, in which case the report can be considered valid for 24 months. Please be aware that some Local Planning Authorities (LPAs) require an update once 12 months has elapsed. If work has not commenced within this period, an updated survey by a suitably qualified ecologist may be required.

### Legal and Moral Constraints and Responsibilities Summary

An overview of relevant legislation and responsibility is given within the Appendices: Planning Policy and Legislation. Constraints exist for development where specific habitats or species are, or are potentially, within or adjoining a site proposed for development. Therefore, avoidance, mitigation, compensation and enhancement for a site will apply.



In all instances where Mitigation is given, also refer to:

- Any further survey work for protected species (Phase 2 Surveys) recommended, or their results.
- General Good Practice during Construction Stage.
- Law and Legislation pertaining to specific species (plants and animals)
- Prevention of the spread of native and non-native invasive plants and animals.
- Avoidance of Wildlife Crime <http://www.nwcu.police.uk/>

Further advice if species are found onsite during development may be sought from Ecological Surveys Ltd (Tel: 01503 240846 or 07736 458609) or Natural England.

### **What is a Preliminary Ecological Appraisal (PEA)?**

Preliminary Ecological Appraisal (PEA) is the term used to describe a rapid assessment of the ecological features present, or potentially present, within a site and its surrounding area (the zone(s) of influence in relation to a specific project (usually a proposed development)). A PEA normally comprises a desk study and a walkover survey. It should be considered to be a simplified form of an ecological survey and assessment.

The key objectives of a PEA are to:

- identify the likely ecological constraints associated with a project;
- identify any mitigation measures likely to be required, following the 'Mitigation Hierarchy'
- identify any additional surveys that may be required to inform an Ecological Impact Assessment (EcIA) should one be required; and
- identify the opportunities offered by a project to deliver ecological enhancement.

[CIEEM, 2017a]

The primary audience for a PEA is the client or developer and relevant members of the project team, such as the architect, planning consultant and landscape architect. It is normally produced to inform a developer (or other client), and their design team, about the key ecological constraints and opportunities associated with a project, possible mitigation requirements and any detailed further surveys required to inform an Ecological Impact Assessment (EcIA).

Many PEA's are written in a form which might not be accepted by the LPA as it might lack sufficient detail. Our report is written in a manner to support smaller scale developments, or developments taking place in locations which are not of high biodiversity value, without upgrading to a full EcIA.

Please Note: if the PEA reveals the presence of protected / priority species and / or habitats or the potential for the proposal to impact upon protected sites, it may be necessary to upgrade the PEA into an EcIA to ensure its acceptance by the LPA.

## 2. Non-technical Summary

<b>Proposed development:</b>	Construction of one dormer bungalow as holiday let accommodation
<b>Purpose of the report:</b>	To present the results of the Extended Phase 1 Habitat Survey undertaken at Men-a-Vaur, Church Road, Hugh Town, St. Mary's on the Isles of Scilly, TR21 0NA, hereafter referred to as 'the Site'; assess the impacts of the proposed development on the important ecological features identified; and detail applicable compensation, mitigation measures and biodiversity enhancements as appropriate.
<b>Is this PEA report considered sufficient on its own to submit with a planning application, or does it require upgrading to an Ecological Impact Assessment (EcIA)?</b>	This report is considered sufficient for the size and scale of predicted impacts as a result of the proposal.

<b>Further Survey Work</b>	- None required.
<b>Further Assessment or Mitigation Method Statements</b>	- None required
<b>Habitat Regulation Assessment (HRA) likely?</b>	- It is considered possible that the local planning authority (LPA) may request an HRA and we advise urgent consultation with the LPA to clarify this requirement.
<b>Important Ecological Features (IEFs)</b>	The presence of an IEF on site, or in a location which could potentially be impacted by the development or post development activities will need to be Mitigated for.
<b>IEF Designated sites</b>	<p><b>Onsite:</b></p> <ul style="list-style-type: none"> <li>- None</li> </ul> <p>[The site is within the Isles of Scilly Area of Outstanding Natural Beauty (AONB)]</p> <p><b>Offsite:</b></p> <ul style="list-style-type: none"> <li>- Isles of Scilly Complex Special Area of Conservation (SAC)</li> <li>- Isles of Scilly potential Special Protection Area (pSPA)</li> </ul>
<b>IEF Habitats</b>	<p><b>Onsite:</b></p> <ul style="list-style-type: none"> <li>- Free-standing trees (for nesting birds and one with low bat roosting potential)</li> <li>- Non-native species-poor/ornamental hedge (for nesting birds)</li> <li>- Vegetated fencing (for nesting birds)</li> <li>- Derelict greenhouse and shed (for nesting birds)</li> </ul>



<p><b>IEF Species</b></p>	<p><b>Offsite:</b></p> <ul style="list-style-type: none"> <li>- None</li> </ul> <p><b>Onsite:</b></p> <ul style="list-style-type: none"> <li>- Bats (potentially)</li> <li>- Lesser white-toothed shrew (<i>Crocidura suaveolens</i>) (potentially)</li> <li>- Nesting birds</li> </ul> <p><b>Offsite:</b></p> <ul style="list-style-type: none"> <li>- None</li> </ul>
<p><b>Invasive Non-native Species (Schedule 9 species)</b> If present, you have a legal obligation to avoid spreading these plants into the wider environment</p>	<ul style="list-style-type: none"> <li>- <b>On site:</b> montbretia (<i>Crococsmia x crocosmiiflora</i>).</li> <li>- <b>In the immediate vicinity:</b> Japanese knotweed (<i>Reynoutria japonica</i>), montbretia, three-cornered garlic (<i>Allium triquetrum</i>), Hottentot-fig (<i>Carpobrotus edulis</i>), purple dewplant (<i>Disphyma crassifolium</i>) and wall cotoneaster (<i>Cotoneaster horizontalis</i>).</li> </ul>
<p><b>Avoidance Measures</b></p>	<p>You must avoid impacts to the following habitats:</p> <ul style="list-style-type: none"> <li>- Free-standing elms at southern end of garden</li> </ul>
<p><b>Mitigation Measures</b></p>	<ul style="list-style-type: none"> <li>- Habitats retained: some free-standing trees at southern end, southern boundary hedge</li> <li>- Construction Exclusion Zones to protect some free-standing trees, hedge and remaining garden</li> <li>- Soft-felling method used for removal of ivy-clad pear tree</li> <li>- Appropriate timing of woody species removal, as well as removal of greenhouse and shed</li> <li>- Removal of dumped rubbish/garden waste piles by hand</li> <li>- Covered trenching and capped pipework</li> <li>- Artificial Lighting Strategy</li> <li>- Creation of new habitats: tree planting, hedgerow</li> <li>- Removal of invasive, non-native species</li> </ul> <p>Mitigation measures should be overseen by an ecological clerk of works, or a suitably-experienced ecologist.</p>
<p><b>Enhancement Measures</b> The LPA have an obligation to ensure that all developments result in a 'net biodiversity gain'. Consequently, even if there are no perceived negative biodiversity impacts, you will still have to provide some form of biodiversity enhancement.</p>	<ul style="list-style-type: none"> <li>- The inclusion a built-in bird box and bat tube</li> <li>- Inclusion of a built-in solitary bee brick</li> <li>- Landscaping to Benefit Wildlife</li> </ul> <p>Enhancement measures should be overseen by an ecological clerk of works or a suitably-experienced ecologist.</p>



<p><b>Landscape and Ecological Management Plan (LEMP)</b> A LEMP clarifies the timings and process which must be followed to ensure the biodiversity protection and enhancement of the site, during and post-development, as well as landscape considerations.</p>	<ul style="list-style-type: none"> <li>- Not recommended for this site.</li> </ul>
<p><b>Important Advisory</b></p>	<p>Ensure all onsite contractors/personnel are familiar with this report (and any Phase 2 reports associated with this site) and able to act upon the law and legislation governing protection of species and habitats onsite and mitigation specifically pertaining to this site. Should protected species be discovered on site, all works in the vicinity must cease immediately and ecological advice sought urgently.</p>
<p><b>Other relevant information / advice</b></p>	<ul style="list-style-type: none"> <li>- The LPA should ensure that any mitigation and compensation measures identified in this report, together with enhancement recommendations are either 'conditioned' where appropriate, or that full permission is withheld pending the agreement of mitigation, compensation (where necessary) and enhancement measures.</li> </ul>

An Ecological Constraints and Opportunities Plan (ECOP) for the proposed development on site is set out in Appendix I at the end of this report.

Any works which negatively impact the biodiversity of this site, post the results of this ecological survey being received verbally, or in writing, could constitute a Wildlife Crime ([Appendix F. Wildlife Crime](#); <http://www.nwcu.police.uk/>).



### 3. Introduction

Ecological Surveys Ltd were commissioned to undertake a Preliminary Ecological Appraisal (PEA) to include the potential for legally protected and notable species of the Site at Men-a-Vaur, Church Road, Hugh Town, St. Mary's, and to assess the potential impact of the development on the biodiversity of the Site and its immediate environs. Ecological Surveys Ltd has not been informed of any previous surveys undertaken on this site that need to inform this report.

The proposed development relating to the construction of two semi-detached residential properties for holiday letting purposes was submitted to the Council of the Isles of Scilly in December 2018 (reference P/18/090/FUL). Planning permission was refused in March 2019 for the following reason (amongst others):

'The proposed development would result in the loss of greenspace and biodiversity habitat, which is not compensated for in the application, contrary to the requirements of emerging Policy OE2 of the Draft Isles of Scilly Local Plan 2015-2030 and paragraph 170(d) of the National Planning Policy Framework 2018.'

[Council of the Isles of Scilly, 2019a]

The development was also refused at appeal (reference APP/Z0835/W/19/3225058) on 9 July 2019 on similar grounds to the above, as no biodiversity survey was submitted with the appeal documentation.

Therefore, this Preliminary Ecological Appraisal (PEA) report provides the results of the biodiversity survey, as well as desk-top study, and gives an overall assessment of the biodiversity impact of the development on the site and its immediate environs. The development has been reduced slightly in scale, to a single dormer bungalow for holiday letting purposes.

Only habitats which are present on site or adjoining the site are included and no discussion is entered into regarding habitats which are not present.

#### 3.1 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, 2017a).

#### 3.2 Site Location and Size

The Site comprises a former garden at the rear of the property Men-a-Vaur along Church Road on the eastern edge of Hugh Town, St. Mary's on the Isles of Scilly (see Figure 1 in section 4). It has a number of mature trees, a derelict overgrown greenhouse and a small wooden shed in a state of disrepair. It is bordered on all sides by residential properties. A wooden fence forms the northern boundary, separating the site from Men-a-Vaur itself, with the other boundaries formed by chain-link fencing and some short lengths of wall, all overgrown by vegetation, predominantly Atlantic ivy (*Hedera hibernica*). They all have garden shrubs growing along them, forming hedging in places; those along the western boundary are within the adjacent property (offsite).



The area surveyed is approximately 0.05 hectares in extent.

### **3.3 Proposed Development**

The proposed development comprises the construction of a single dormer bungalow for holiday letting purposes (see Figure 2 in section 4). A cycle store and bin store will also be built and the property will be accessed on foot from Branksea Close.

Details of the proposed development, including a layout and design, were provided by the client before any survey work was undertaken.

#### 4. Figure 1. Site Location Map





**Figure 2. Proposed Development Plan**





## 5. Methodology

This Preliminary Ecological Appraisal encompasses the establishment of the ecological baseline by undertaking a desktop survey, drawing on existing information and data, and a field survey; initial evaluation of the impacts of the proposed development on the designated sites, habitats and species found both on the Site and in the immediate vicinity of the Site and the identification of measures to mitigate the impacts; and the identification of ways to enhance the biodiversity of the area.

### 5.1 Desktop Survey

A desk-top survey was undertaken, collating existing data for the following relating to both the Site itself and the area within a two-kilometre radius:

- Statutory and non-statutory wildlife and earth science sites
- BAP Priority Inventory Habitats
- Legally protected and nationally notable species

Websites were consulted (refer to [References](#)).

A biological records search was commissioned from the Cornish Biodiversity Network (CBN) and where appropriate details are included within this report

### 5.2 Field Survey

A field survey was undertaken by Sarah Board BSc (Hons), MSc, MCIEEM on 15<sup>th</sup> November 2019 from 10:45 – 12:25 and the weather comprised heavy rain showers with intermittent dry spells.

The field survey included carrying out an Extended Phase 1 Habitat Survey, consisting of a walkover assessment of the Site using Phase 1 Habitat Survey methodology (JNCC, 2010, as amended by the Institute of Environmental Assessment (IEA, 1995)). This is a standard technique for classifying and mapping British habitats. All areas within the Site were surveyed, the main plant species recorded, and habitat type mapped. Indicators of ecological value were also noted, including the presence or signs of any legally protected or rare species.

Plant species were identified according to Stace (2019).

A search was also made to identify the presence of any invasive non-native species (particularly those listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)), including Japanese knotweed (*Reynoutria japonica*) and Himalyan balsam (*Impatiens glandulifera*).

Any buildings onsite were assessed for their potential to support roosting bats (using the criteria set out in Appendix D). Buildings were examined both externally and internally to consider the potential and actual use by bats, as well as by nesting birds.

### 5.3 Survey Constraints

All areas of the Site were readily accessible, and the time spent on site was considered appropriate to obtain all the details required for each habitat and species to enable an assessment to be made. Although some plant species would not have been visible during the survey period, the botanical diversity was considered sufficient to be able to classify and



assess the habitats present, as well as their potential for supporting legally protected and notable species.

The derelict greenhouse and the wooden shed, located at either end of the garden, were not entered due to their states of disrepair but were viewed internally through the doorways of each.

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 only valid for two years, after which time it will need updating. It being accepted that some LPA's now expect a survey to be updated after twelve months.

#### **5.4 Assessment**

All ecological data and information gained through both the desktop survey and the survey work were evaluated. The important ecological features were then identified and evaluated against the potential impacts/effects that the proposed development may have on the ecology of the Site and surrounding area.

The biodiversity importance of each designated site, habitat and species is evaluated on a geographic scale: international, national, county and local.

Evaluation of designated sites considers their designation; their ecological and landscape relationship with the proposed site; and the species and/or habitat types for which the site was designated.

Evaluation of habitats considers their designation; their area, quality and viability; diversity and connectivity to the wider landscape; and structural diversity and species-richness.

Evaluation of species considers their designation, including legal protection and rarity.

When assessing the impact of the development and changes to the baseline conditions on site, predictions will be made which focus solely on the zone of influence whilst taking into consideration the lifespan of the development and the significant impacts as identified from the proposed work operations throughout the lifespan of the development.

The proposed development aims to firstly avoid and then mitigate against any potential effects/impacts on the local ecology/biodiversity, ensuring compliance with nature conservation legislation. It aims to achieve this by applying the mitigation hierarchy (as mentioned in Paragraph 118 of the National Planning Policy Framework and detailed in Paragraph: 018 Reference ID: 8-018-20140306 of National Planning Practice Guidance) as follows:

**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.

Appropriate measures to avoid and/or minimise the significant negative effects on the important ecological features have been identified. These mitigation measures aim firstly to avoid the overall effect/impact, or for those that cannot be avoided, reduce their overall effect value. It is not always possible to fully mitigate an adverse effect to neutral levels.

Under the National Planning Policy Framework, NPPF, (HM Government, 2019) local planning policies and decisions should 'contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

[Taken from NPPF 2019, Section 15. Conserving and enhancing the natural environment, paragraph 170, p49]

Thus, the mitigation hierarchy should be applied when considering the impacts of developments and local planning decisions on the natural environment, with the protection of important wildlife sites, habitats, species and ecosystem services; the avoidance of impacts, mitigating these impacts where appropriate, and then achieving biodiversity net gain through enhancements.

Section 15 of the NPPF 2019 goes on to state that 'when determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;



b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.'

[Taken from NPPF 2019, Section 15. Conserving and enhancing the natural environment, paragraph 175, p50]

The aim of development should be to deliver biodiversity net gain on site as well as limiting damage to important ecological features. Using the information gained during the desktop survey and the extended Phase 1 habitat survey, and the ecological requirements of habitats, species and local environmental conditions, biodiversity enhancements for the Site have been considered, providing opportunities to increase the diversity of habitats and species on site.

The Council of the Isles of Scilly are in the process of producing a new local plan for the Islands, Isles of Scilly Local Plan 2015 – 2030 (Council of the Isles of Scilly, 2019b). It has been through the final stage of public consultation (closed in mid-September 2019) and will be submitted to the Secretary of State for the Ministry of Housing, Communities and Local Government to undergo public examination by a Planning Inspector. This draft plan includes policy OE2 concerning biodiversity and geodiversity which starts by stating:

(1) Development will be required to conserve, protect and, where possible, restore and/or provide measurable net gains to biodiversity and geodiversity interests and soils. All development must ensure that the importance of habitats, designated sites and species are taken into account; they must also incorporate appropriate measures to avoid and reduce the disturbance of sensitive wildlife sites and habitats, provide opportunities for enhancement wherever possible, and minimise the impacts of non-native species through the lifetime of the development.

[Council of the Isles of Scilly, 2019b, page 72]

It goes on to advocate the use of the mitigation hierarchy within the policy to avoid, mitigate and compensate for impacts on biodiversity and geodiversity, as follows:

(8) Development should avoid adverse impacts on existing biodiversity and geodiversity interests as a first principle, and enable measurable net gains by





designing-in biodiversity features and enhancements and opportunities for geological conservation alongside new development, in accordance with Policies SS1 and SS2. Where adverse impacts are unavoidable, it must be demonstrated that the development cannot be reasonably located on an alternative site that would result in less or no harm to biodiversity or geodiversity interests; and impacts must be adequately and proportionately mitigated. If full mitigation cannot be provided, compensation will be required as a last resort. Clear arrangements for the long-term maintenance or management of the mitigation and compensation need to be provided.

[Council of the Isles of Scilly, 2019b, page 73]

The current local plan (Council of the Isles of Scilly, 2005) covered biodiversity and geodiversity within Policy 1 Environmental protection which starts by stating its aim being 'to ensure that all relevant future development proposals respect and protect the recognised quality of the islands' natural, archaeological, historic and built environment'. This was followed up by a Supplementary Planning Document concerning biodiversity and geodiversity conservation (Council of the Isles of Scilly, 2008) which outlines the following guiding principles for developers:

- View biodiversity and geodiversity as an opportunity not a constraint
- Access ecological and geological expertise
- Surveys and information gathering
- Avoidance, mitigation and compensation
- Enhancement



## 6. Results/Baseline Ecological Conditions

This section presents the findings from the site survey and desktop study. The information is presented in three distinct sections:

- Designated sites
- Habitats
- Species

### 6.1 Designated Sites

Designated sites of international, national and local importance are listed below, along with their approximate distance from the proposed development.

Designation	Name (if applicable)	Distance
<b>Statutory Sites</b>		
<b>Special Area of Conservation (SAC):</b>	Isles of Scilly Complex	~230m to the south-west
<b>Special Protection Area (SPA):</b>	Isles of Scilly (potential SPA)	~230m to the south-west
<b>RAMSAR:</b>	None	N/a
<b>World Heritage Site:</b>	None	N/a
<b>Site of Special Scientific Interest (SSSI):</b>	Lower Moors (St. Mary's) Peninnis Head (St. Mary's) Porthloo Higher Moors & Porth Hellick Pool (St. Mary's)	~340m to the east ~495m to the south ~950m to the north ~1.4km to the north-east
<b>Areas of Outstanding Natural Beauty (AONB):</b>	Isles of Scilly	Within
<b>National Nature Reserve (NNR):</b>	None	N/a
<b>Local Nature Reserve (LNR):</b>	None	N/a
<b>Non-statutory Sites</b>		
<b>County Wildlife Site (CWS):</b>	None	N/a
<b>County Geology Site (CGS):</b>	None	N/a

The Site lies within a SSSI Impact Risk Zone, but the type of development (two residential units) does not require Natural England to be consulted.

The Site is within the Isles of Scilly Complex SAC and the Isles of Scilly pSPA Zones of Influence. Dependent on the type and scale of proposal, the developers may be required to provide a shadow screening assessment to the planning authority to aid in its Habitat Regulations Screening assessment of the likely impact on the Isles of Scilly Complex SAC / pSPA.

A 'Habitats Regulation Assessment' (HRA) may be required on this site. Refer to [Appendix G. Habitats Regulation Assessment \(HRA\)](#) for details.

**Designated sites considered Important Ecological Features with respect to the proposed development:**

- Isles of Scilly Complex SAC
- Isles of Scilly pSPA

**6.2 Habitats**

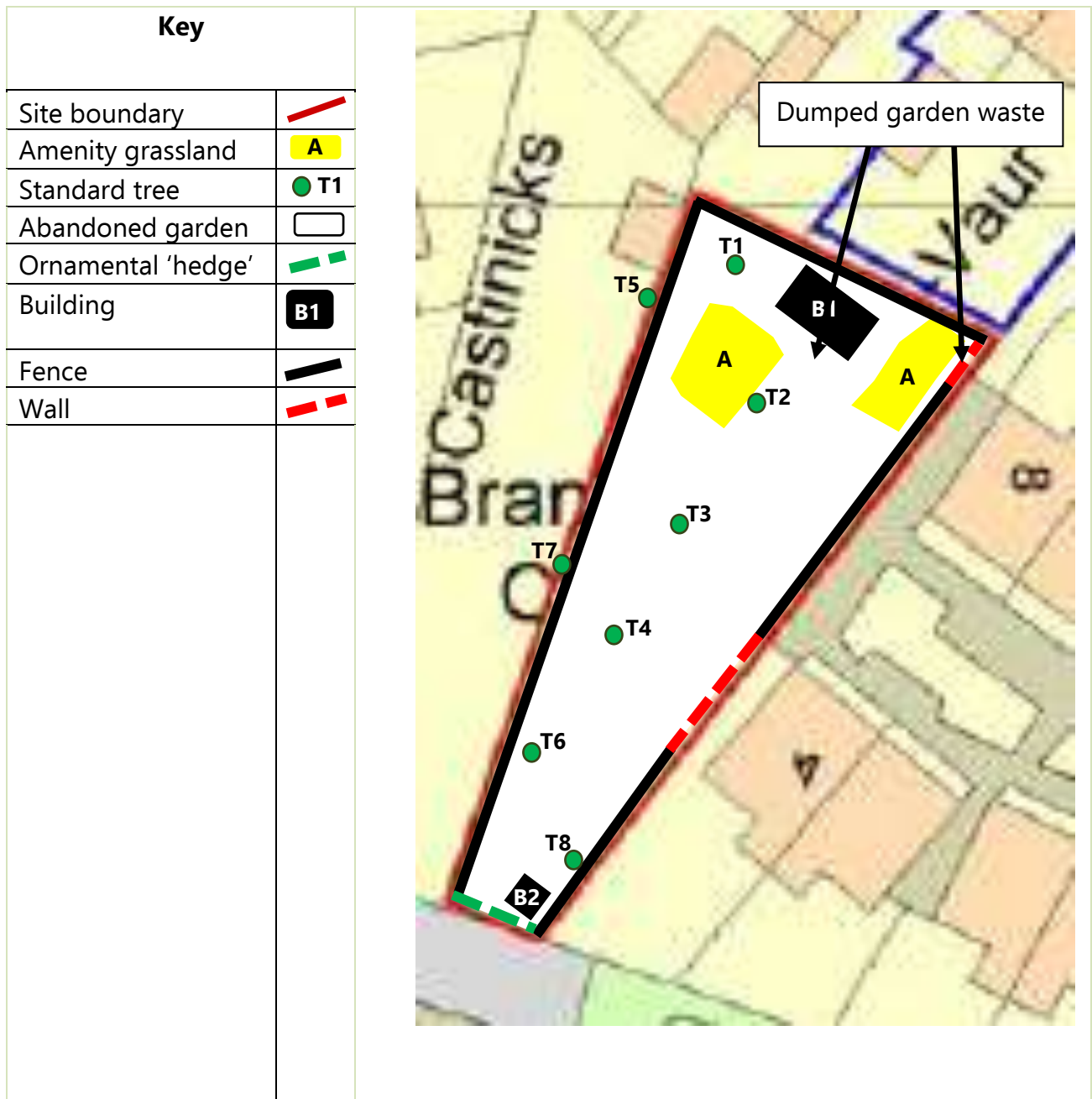
This section details the habitats present on the Site and recorded during the Extended Phase 1 Habitat Survey, along with important habitats within the vicinity of the site. Figure 3 maps the Phase 1 habitats recorded onsite during the field survey and Table 1 summarises the area of each of these habitats.

**Table 1. Phase 1 habitats associated with the site, their extent and value in a geographical context.**

<b>Phase 1 habitat type</b>	<b>Area (sqm) or length (m)</b>
Amenity grassland	36 sqm
Abandoned garden	422 sqm
Buildings	22 sqm
Free-standing trees	(~280 sqm cover)
Vegetated fences (including small sections of wall)	62 m
Non-native (ornamental) hedge	7 m



Figure 3. Extended Phase 1 Habitat Survey Map





**Semi-natural Broadleaved Woodland**

<b>Onsite</b>	None.
<b>Area of semi-natural broadleaved woodland on site</b>	0
<b>Offsite</b>	Woodlands are not a feature of the surrounding landscape; the closest ones being on The Garrison some 615m to the south-west across Porth Cressa and on the eastern edge of Lower Moors some 645m to the north-east of the site. Both are designated as Habitats of Principle Importance under the NERC Act 2006 as lowland mixed deciduous woodland.
<b>Legal Constraints</b>	None
<b>Important Ecological Feature (IEF)</b>	No
<b>Further Survey Work</b>	Phase 2 survey not required.
<b>Avoidance Measures</b>	None required.
<b>Mitigation Measures</b>	Not required.
<b>Biodiversity Enhancement Measures</b>	Not required.
<b>Habitat loss/gain</b>	0

**Trees (free-standing)**

	
New Zealand Christmas tree (T2)	Apple tree and ivy-clad pear tree (T3)



	
<p>Group of elms near southern boundary (T6)</p>	<p>Southern beech (unconfirmed) (T4)</p>
<p><b>Onsite</b></p>	<p>There are a number of free-standing trees on site, as well as offsite close to the western boundary.</p> <p>A New Zealand Christmas tree (<i>Metrosideros excelsa</i>) and an unknown tree species lie towards the northern end of the site, T2 and T1 respectively (shown on Figure 3). There is also a palm tree located offsite but close to the western boundary towards the northern end. A mature apple (<i>Malus</i> spp.) and a pear (<i>Pyrus</i> spp.) (T3), as well as a southern beech (<i>Nothofagus nervosa</i>) (identification unconfirmed) (T4) are situated in the centre of the site, with two groups of elms (<i>Ulmus</i> spp.) (T6 and T8) near the southern site boundary. A further elm lies along the western boundary and overhangs the site (T7).</p> <p>All of these trees have been planted. One tree offers low bat roosting potential, the ivy-clad pear tree in the centre of the garden (T3).</p> <p>Ascertaining the presence of Tree Preservation Orders (TPOs) is beyond the remit of this report.</p> <p>The trees onsite are important for several animal species and provide habitat for potential protected species such as: birds, bats and invertebrates. There are important biodiversity features providing an area of semi-natural habitat for a range of species.</p>
<p><b>Area of individual tree cover on site</b></p>	<p>230 sqm</p>
<p><b>Offsite</b></p>	<p>There are free-standing trees adjacent to the western boundary.</p>
<p><b>Legal Constraints</b></p>	<p>The free-standing trees offer habitat for protected species.</p>



<b>Important Ecological Feature (IEF)</b>	Yes (for nesting birds and low bat roosting potential)
<b>Further Survey Work</b>	Phase 2 survey not required.
<b>Avoidance Measures</b>	None required.
<b>Mitigation Measures</b>	Required as follows: <ol style="list-style-type: none"> <li>1. Soft-felling method used for the removal of the pear tree with low bat roosting potential</li> <li>2. Appropriate timing of woody species removal</li> <li>3. Construction Exclusion Zone (CEZ)</li> <li>4. Tree planting</li> <li>5. Artificial Lighting Strategy</li> <li>6. Hedge planting</li> </ol>
<b>Biodiversity Enhancement Measures</b>	Required as follows: <ol style="list-style-type: none"> <li>1. Inclusion of in-built bird box</li> <li>2. Inclusion of in-built bat tube</li> </ol>
<b>Habitat loss/gain</b>	Loss of 110 sqm – elms in southern section of the site will remain.

### Amenity Grassland



Amenity grassland (former lawn) in north-eastern corner of site



<b>Onsite</b>	There are two small areas of amenity grassland (remnants of a lawn) both near the northern site boundary. Species recorded within the grassland include perennial rye-grass ( <i>Lolium perenne</i> ), creeping buttercup ( <i>Ranunculus repens</i> ), dandelion ( <i>Taraxacum officinale</i> agg.) and violet ( <i>Viola</i> spp.).
<b>Area of amenity grassland on site</b>	36 sqm
<b>Offsite</b>	There is similar amenity grassland in some adjacent gardens, with semi-natural grassland to the south-west on Buzza Hill.
<b>Legal Constraints</b>	None.
<b>Important Ecological Feature (IEF)</b>	No
<b>Further Survey Work</b>	Phase 2 survey not required.
<b>Avoidance Measures</b>	None required.
<b>Mitigation Measures</b>	Not required.
<b>Biodiversity Enhancement Measures</b>	Not required.
<b>Habitat loss/gain</b>	Loss of 36 sqm

### Abandoned Garden



Abandoned garden across the majority of the site





<b>Onsite</b>	<p>The garden appears to have been abandoned for a while with the ground flora dominated by ruderals and garden plants, including large areas of nasturtiums (<i>Nasturtium</i> spp.) and alexanders (<i>Smyrnium olusatrum</i>). Other species recorded include bristly oxtongue (<i>Helminthotheca echioides</i>), ribwort plantain (<i>Plantago lanceolata</i>), herb-Robert (<i>Geranium robertianum</i>), hogweed (<i>Heracleum sphondylium</i>), common nettle (<i>Urtica dioica</i>), wavy bitter-cress (<i>Cardamine flexuosa</i>), Italian lords-and-ladies (<i>Arum italicum</i>) and cultivated strawberry (<i>Fragaria ananassa</i>).</p> <p>There is dumped brickwork, wood and garden waste throughout the site, with a large pile adjacent to the greenhouse, and garden waste along the northern end of the eastern boundary.</p>
<b>Area of abandoned garden on site</b>	422 sqm
<b>Offsite</b>	Unknown.
<b>Legal Constraints</b>	None.
<b>Important Ecological Feature (IEF)</b>	No
<b>Further Survey Work</b>	Phase 2 survey not required.
<b>Avoidance Measures</b>	None required.
<b>Mitigation Measures</b>	Required as follows: 1. Removal of dumped rubbish and garden waste by hand.
<b>Biodiversity Enhancement Measures</b>	Not required.
<b>Habitat loss/gain</b>	Loss of 422 sqm but new garden created



## Ornamental Hedge





Ornamental hedge along Ram's Valley

<b>Onsite</b>	The southern boundary, along Ram's Valley is formed from <b>non-native species-poor/ornamental hedgerow</b> , with <i>Griselinia</i> the main species present.
<b>Length of hedgerows on site</b>	Non-native species-poor/ornamental hedge: 7 m
<b>Offsite</b>	Non-native hedgerows are n a feature of the Scillonian landscape.
<b>Legal Constraints</b>	The hedgerows offer habitat for protected species.
<b>Important Ecological Feature (IEF)</b>	Yes (for nesting birds)
<b>Further Survey Work</b>	Phase 2 survey not required.
<b>Avoidance Measures</b>	Hedgerow must be retained and mitigation measures put in place to avoid damage (see below).
<b>Mitigation Measures</b>	Required as follows: 1. Construction Exclusion Zone (CEZ) 2. Appropriate timing of woody species removal
<b>Biodiversity Enhancement Measures</b>	Not required.
<b>Habitat loss/gain</b>	0



**Wall / Fence**

	
<p>Wooden fence along northern site boundary</p>	<p>Vegetated section of chain-link fence along eastern site boundary</p>
<p><b>Onsite</b></p>	<p>A wooden fence divides the development plot from Men-a-Var itself (forming the northern site boundary). The eastern and western boundaries are predominantly chain-link fencing (some sections of wall along the eastern boundary). This fencing is heavily vegetated along much of its length, with a mixture of onsite and offsite garden shrubs including bay (<i>Laurus nobilis</i>), hebe (<i>Hebe</i> spp.), Pittosporum species (<i>Pittosporum</i> spp.), Australian laurel (<i>P. tobira</i>) and <i>Griselinia</i> species, as well as Atlantic ivy.</p>
<p><b>Length of wall/fence on site</b></p>	<p>62m</p>
<p><b>Offsite</b></p>	<p>Unknown.</p>
<p><b>Legal Constraints</b></p>	<p>The vegetated fencing offers habitat for protected species.</p>
<p><b>Important Ecological Feature (IEF)</b></p>	<p>Yes (for nesting birds)</p>
<p><b>Further Survey Work</b></p>	<p>Phase 2 survey not required.</p>
<p><b>Avoidance Measures</b></p>	<p>None</p>
<p><b>Mitigation Measures</b></p>	<p>Required as follows: 1. Appropriate timing of woody species removal</p>
<p><b>Biodiversity Enhancement Measures</b></p>	<p>Not required.</p>
<p><b>Habitat loss/gain</b></p>	<p>0</p>



**Buildings**

<p>Overgrown, derelict greenhouse at northern end of site</p>	<p>Overgrown wooden shed at southern end of site</p>
<p><b>Onsite</b></p>	<p>There is a derelict greenhouse at the northern end of the site which has become overgrown with Atlantic ivy and bramble (<i>Rubus fruticosus</i> agg.). Panes of glass are missing and there is no door.</p> <p>At the southern end of the site is a small wooden shed with a collapsed roof and floor, which is overgrown with Atlantic ivy, both inside and out.</p> <p>There is negligible potential for bat roosting within both the greenhouse and the shed. However there is bird nesting potential in both, with house sparrows (<i>Passer domesticus</i>) recorded flying into the greenhouse during the survey. No birds nests were seen in either 'building'.</p>
<p><b>Area of habitat formed by the building on site</b></p>	<p>22 sqm</p>
<p><b>Offsite</b></p>	<p>There are a number of buildings surrounding / adjacent to the site.</p>
<p><b>Legal Constraints</b></p>	<p>No nests are present but potential exists; all nesting birds and their eggs are protected by law from disturbance, harm or death. The structures must be retained where nesting and fledging is occurring, usually between March and September, but bird specific.</p>
<p><b>Important Ecological Feature (IEF)</b></p>	<p>Yes (for nesting birds)</p>
<p><b>Further Survey Work</b></p>	<p>Phase 2 survey not required.</p>
<p><b>Avoidance Measures</b></p>	<p>None</p>
<p><b>Mitigation Measures</b></p>	<p>Required as follows:</p>



	1. Appropriate timing of the removal of bird nests 2. One bird brick built within structure of new build
<b>Biodiversity Enhancement Measures</b>	Required as follows: 1. One bird brick built within structure of new build
<b>Habitat loss/gain</b>	22 sqm but new build

### Other Habitats

There are a number of habitats that have been designated as Habitats of Principle Importance under the NERC Act 2006 lying within a 2km radius of the proposed development site, as follow:

- Lowland heathland: closest lying approximately 180m to the south-west of the site (along the coastal edge of Buzza Hill)
- Lowland fens: closest lying approximately 315m to the east at Lower Moors
- Reedbeds: closest lying approximately 1.4km to the north-east at Higher Moors
- Coastal vegetated shingle: closest lying approximately 605m to the south-east at Old Town Bay
- Maritime Cliff and Slopes: closest lying approximately 330m on the east side of Porth Cressa

None of these habitats will be directly impacted by the proposed development on the eastern edge of Hugh Town.

### 6.3 Species

This section includes details concerning the species recorded on site during the Extended Phase 1 Habitat Survey, as well as legally protected and/or notable species recorded within a 2km radius of the development site. The potential for the presence of legally protected and/or notable species on site has also been included, based on the habitats recorded on site and adjacent land.

Where there is no potential for a species or species group to be present within the site, they have been scoped out at this stage.

### Bats

<b>Onsite</b>	[The use of any buildings/structures on site by bats has been included in section <i>6.2 Habitats</i> above, in the <i>Buildings</i> section.]  There is one tree present on site that has low potential for roosting bats – the ivy-clad pear tree in the centre of the site. The other trees both onsite and in the immediate vicinity, as well as shrubs along the eastern and western boundaries and the ornamental hedge on the southern boundary, provide opportunities for foraging and commuting bats, with connectivity out into the wider
---------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



	<p>landscape of Buzza Hill and the farmland and semi-natural habitats to the south and east.</p> <p>No bat species have been recorded on site since 2000.</p>
<b>Offsite</b>	<p>All bat species are legally protected; the following bat species have been recorded on St. Mary's since the year 2000: common pipistrelle (<i>Pipistrellus pipistrellus</i>), soprano pipistrelle (<i>P. pygmaeus</i>) and Nathusius pipistrelle (<i>P. nathusii</i>) (Groves, 2013).</p>
<b>Legal Constraints</b>	<p>The habitat has been assessed as capable of supporting protected bat species: - legal constraints apply: legal protection under The Conservation of Habitats and Species Regulations 2010, the Wildlife and Countryside Act 1981 (as amended) and the NERC Act 2006.</p>
<b>Important Ecological Feature (IEF)</b>	<p>Yes</p>
<b>Further Survey Work</b>	<p>Phase 2 survey not required.</p>
<b>Avoidance Measures</b>	<p>None required.</p>
<b>Mitigation Measures</b>	<p>Required as follows:</p> <ol style="list-style-type: none"> <li>1. Soft-felling method used for the removal of the pear tree with low bat roosting potential</li> <li>2. Construction Exclusion Zone (CEZ)</li> <li>3. Artificial Lighting Strategy</li> <li>4. Hedge planting</li> <li>5. Tree planting</li> </ol>
<b>Biodiversity Enhancement Measures</b>	<p>Required as follows:</p> <ol style="list-style-type: none"> <li>1. One bat tube built within the structure of the new property</li> </ol>

**Lesser White-toothed Shrew (*Crocidura suaveolens*)**

<b>Onsite</b>	<p>No signs of lesser white-toothed shrew (<i>Crocidura suaveolens</i>) using the Site were recorded during the field survey. The habitats present onsite are suitable for supporting lesser white-toothed shrew and they are often found around habitation.</p> <p>The lesser white-toothed shrew has not been recorded on site since 2000.</p>
<b>Offsite</b>	<p>The lesser white-toothed shrew has been recorded within a 2km radius of the site since the year 2000.</p>



<b>Legal Constraints</b>	The habitat has been assessed as capable of supporting lesser white-toothed shrew: legal protection under the Wildlife and Countryside Act 1981 (as amended).
<b>Important Ecological Feature (IEF)</b>	Yes
<b>Further Survey Work</b>	Phase 2 survey not required.
<b>Avoidance Measures</b>	None required.
<b>Mitigation Measures</b>	Required as follows: 1. Construction Exclusion Zone (CEZ) 2. Covered trenching and capped pipework 3. Hedge planting 4. Tree planting
<b>Biodiversity Enhancement Measures</b>	Not required.

## Birds

<b>Onsite</b>	Habitats at this site are likely to support common and widespread birds. The following common and/or widespread birds were recorded on site during the Extended Phase 1 Habitat Survey: house sparrow ( <i>Passer domesticus</i> ), song thrush ( <i>Turdus philomelos</i> ) and collared dove ( <i>Streptopelia decaocto</i> ); house sparrow and song thrush are both listed on Schedule 41 of the NERC Act 2006.  All bird species are protected whilst nesting, breeding and rearing young. The hedge, trees and shrubs onsite, as well as the derelict overgrown greenhouse and shed, are likely to support nesting birds.
<b>Offsite</b>	A number of legally protected and/or notable birds have been recorded within a 2km radius of the site since the year 2000, including waders, water fowl, raptors and passerines.
<b>Legal Constraints</b>	The habitat has been assessed as capable of supporting protected bird species: - legal constraints apply: legal protection under the Wildlife and Countryside Act 1981 (as amended) and the NERC Act 2006.
<b>Important Ecological Feature (IEF)</b>	Yes



<b>Further Survey Work</b>	Phase 2 survey not required.
<b>Avoidance Measures</b>	None required.
<b>Mitigation Measures</b>	Required as follows: <ol style="list-style-type: none"> <li>1. Construction Exclusion Zone (CEZ)</li> <li>2. Appropriate timing for woody species removal</li> <li>3. Hedge planting</li> <li>4. Tree planting</li> </ol>
<b>Biodiversity Enhancement Measures</b>	Required as follows: <ol style="list-style-type: none"> <li>1. Provision of one bird brick built within the structure of the new property</li> </ol>

### Invertebrates

<b>Onsite</b>	Habitats at this site are likely to support common and widespread invertebrates.  No legally protected and/or notable invertebrates have been recorded on site and there are unlikely to be any present as the main habitat is garden. However, as it has been abandoned it is likely to develop into a more diverse site for invertebrates.
<b>Offsite</b>	A number of legally protected and/or notable invertebrates have been recorded within a 2km radius of the site since the year 2000, including moths such as blood-vein ( <i>Timandra comae</i> ), white ermine ( <i>Spilosoma lubricipeda</i> ), knot grass ( <i>Acronicta rumicis</i> ), dusky brocade ( <i>Apamea remissa</i> ) and rosy rustic ( <i>Hydraecia micacea</i> ); the mining bee <i>Andrea thoracica</i> and the beetle <i>Protapion dissimile</i> .
<b>Legal Constraints</b>	None
<b>Important Ecological Feature (IEF)</b>	No
<b>Further Survey Work</b>	Phase 2 survey not required.
<b>Avoidance Measures</b>	None required.
<b>Mitigation Measures</b>	Not required.
<b>Biodiversity Enhancement Measures</b>	Required as follows: <ol style="list-style-type: none"> <li>1. Provision of one bee brick built into the property.</li> </ol>



**Vascular Plants**

<b>Onsite</b>	<p>The site has a low floral diversity, as it is primarily an abandoned garden with non-native shrubs and trees. A list of plants recorded on site during the Extended Phase 1 Habitat Survey is set out in Appendix A.</p> <p>No legally protected and/or notable vascular plant species have been recorded on site.</p>
<b>Offsite</b>	<p>A diversity of legally protected and/or notable vascular plant species have been recorded within a 2km radius of the site since the year 2000 due to the diverse habitats. Such species include the coastal species sea bindweed (<i>Calystegia soldanella</i>), shore dock (<i>Rumex rupestris</i>) and sea knotgrass (<i>Polygonum maritimum</i>); the arable weed species of field woundwort (<i>Stachys arvensis</i>), corn spurrey (<i>Spergula arvensis</i>) corn marigold (<i>Glebionis segetum</i>) and small-flowered catchfly (<i>Silene gallica</i> var. <i>anglica</i>); the heath species heath violet (<i>Viola canina</i> subsp. <i>canina</i>) and heath milkwort (<i>Polygala serpyllifolia</i>); as well as lanceolate spleenwort (<i>Asplenium obovatum</i> subsp. <i>billotii</i>), purple ramping-fumitory (<i>Fumaria purpurea</i>) and ragged-robin (<i>Silene flos-cuculi</i>).</p>
<b>Legal Constraints</b>	None
<b>Important Ecological Feature (IEF)</b>	No
<b>Further Survey Work</b>	Phase 2 survey not required.
<b>Avoidance Measures</b>	None required.
<b>Mitigation Measures</b>	Not required.
<b>Biodiversity Enhancement Measures</b>	Not required.

**Invasive Non-native Species**

<b>Onsite</b>	<p>Montbretia (<i>Crococsmia x crocosmiiflora</i>) was found on site during the survey. This species is listed on Schedule 9 of the Wildlife &amp; Countryside Act 1981 (as amended). Section 14 of the Act prohibits the introduction into the wild of certain plant or animal species which may cause ecological or environmental harm; these species are those listed in Schedule 9. The legislation aims to prevent the planting of Schedule 9 listed plant material in the wild where it poses a threat to the native habitats and species.</p>
---------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



<b>Offsite</b>	The following invasive non-native species have been recorded within a 2km radius of the site since the year 2000: Japanese knotweed ( <i>Reynoutria japonica</i> ), three-cornered garlic ( <i>Allium triquetrum</i> ), montbretia, Hottentot-fig ( <i>Carpobrotus edulis</i> ), purple dewplant ( <i>Disphyma crassifolium</i> ) and wall cotoneaster ( <i>Cotoneaster horizontalis</i> ).
<b>Legal Constraints</b>	Invasive non-native species listed on Schedule 9 of the Wildlife & Countryside Act 1981 (as amended) are present on site.
<b>Important Ecological Feature (IEF)</b>	No
<b>Further Survey Work</b>	Phase 2 survey not required.
<b>Avoidance Measures</b>	n/a
<b>Mitigation Measures</b>	Required as follows:  1. Removal of invasive non-native species
<b>Biodiversity Enhancement Measures</b>	n/a



## **7. Biodiversity Mitigation and Enhancement Details**

The ecological mitigation measures and biodiversity enhancements required for the residential development at Men-a-Vaur, Church Road, Hugh Town on St. Mary's, have been listed in Section 6 above, against the particular habitat, species and species group for which they are required. This section provides the specific details for each of the mitigation measures and enhancements mentioned. These are mapped in the Ecological Constraints and Opportunities Plan (ECOP) set out in Appendix I at the end of this report.

Enhancement (measures that improve the biodiversity/ecological condition) of all sites post development is a planning requirement. The law, central government planning policy and local planning policy point towards the enhancement of a site's biodiversity as part of the development process.

Ecological enhancement measures must be over and above any avoidance, mitigation and compensation measures required to neutralise the impacts of the development on wildlife. An increased need for effective Enhancement has been reinforced by recent research conducted by a United Nations-backed panel called the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) stating up to million plant and animal species face extinction. Whilst we in the UK are not directly responsible for all of this loss, we can try to protect the threatened species within the UK.

Consequently, enhancement requirements within this report should be seen as the minimum expectations and we would urge all clients to carefully consider how they are able to make positive contributions to protecting and enhancing our natural environment within their planning submissions.

The implementation of the mitigation and biodiversity enhancement measures should be overseen by an Ecological Clerk of Works or a suitably experienced ecologist.

### **7.1 Removal of Invasive, Non-native Species**

Montbretia, an invasive, non-native species listed on Schedule 9 of the Wildlife & Countryside Act 1981 (as amended) was found to be present on site. This species should be removed and disposed of responsibly.

- ✓ Prevent invasive non-native plants on development land managed during this time from spreading into the wild or a neighbour's property and causing a nuisance; these species should ideally be removed by hand. Refer Appendix B.
- ✓ Restrictions apply to mulching and earth moving which may cause the spread of invasive non-native plants and animals.
- ✓ Restrictions apply to activities that cause the spread of non-native animals into the wild.

### **7.2 Removal of Dumped Rubbish/Garden Waste**

The dumped rubbish and garden waste should be removed careful from the site by hand so as not to injury or kill any protected mammal, bird or other faunal species.



### **7.3 Soft-felling of the Ivy-clad Pear Tree**

The ivy-clad pear tree in the centre of the site has been identified as having low bat roost potential and therefore must be felled using a 'soft-fell' methodology immediately following an update aerial inspection by a suitably qualified and bat-licensed ecologist.

A 'soft-fell' methodology entails felling the tree in sections, with the following precautions:

- Cutting above or below (rather than directly through) a potential bat roost feature, working from the upper branches down the tree.
- Lowering of cut sections gently to ground level by rope.
- Cut sections are then to be left on site, with any potential roost feature entrances left unobstructed for 48 hours prior to chipping or removal from site, giving any bats a chance to vacate the tree.

### **7.4 Removal of Woody Species, along with the Greenhouse and Shed**

Removal of any woody species including the trees shrubs onsite should be done outside of the bird nesting season of March – September (inclusive). If removal is not possible during this period, careful checks of the trees and shrubs to ensure no bird nesting is taking place must be conducted by a suitably experienced ecologist prior to works commencing. If breeding birds are found or suspected, clearance work will not be permitted until an ecologist is satisfied that breeding is complete, which may be as late as August or September.

The greenhouse and shed should also be dismantled and removed outside of the bird nesting season of March – September (inclusive), with careful checking for bird nesting by a suitably experienced ecologist if dismantling needs to take place during the bird nesting season.

### **7.5 Construction Exclusion Zone**

Areas that are being retained should be protected from damage during the groundworks and construction phase of the development by erecting Heras (or similar) fencing around these features. A Construction Exclusion Zone (CEZ) should therefore be set up along the southern boundary of the build footprint itself, temporarily separating the construction area from the garden of the new holiday let. This will ensure the elms and other trees and shrubs in the southern half of the site are protected during the groundworks and construction phases of the development.

The Root Protection Area (RPA) of all remaining individual standard trees should be taken into account when setting up the CEZ. RPAs are calculated as an area equivalent to a circle with a radius 12 times the stem diameter of the tree. RPAs are capped at 707m<sup>2</sup>, represented by circle with a radius of 15 metres where the tree is at the centre. Therefore, a CEZ set at a distance of 12 x the trees diameter from all individual mature trees will ensure roots are protected.

Temporary fencing (Heras or similar) with appropriate signage will be erected at the appropriate distance(s) (as mentioned above). The only exception to this is at existing access points. Heras fencing is not intended to restrict the access of species to other areas of the site, therefore, mindful procedure by site workers and visitors to the site is always necessary.



No development work should be undertaken within the CEZ and no materials, machinery, chemicals etc. should be stored within this zone. Appropriate signs should be placed at regular intervals along the fencing to ensure everyone on site is aware of the CEZ and understands its relevance (for example CONSTRUCTION EXCLUSION ZONE – NO ACCESS).

Any areas proposed for planting post-development should also be fenced off where possible to prevent compaction of the soil through vehicle movements.

### **7.6 Covered Trenching and Capped Pipework**

Trenches or large excavations should be covered overnight to prevent wildlife such as badgers or hedgehogs falling in and failing to escape. If this is not possible then a strategically placed plank may provide a means of escape. Pipework should be capped at the ends overnight to ensure creatures from getting into the pipes.

### **7.7 Artificial Lighting Strategy**

No external artificial lighting will be introduced to the site during the groundworks and construction phases of the development. External artificial lighting during the operational phase will comprise lights above external doors.

- Light ONLY when and where it is needed for health and safety.
- Prevent light-spill and spread: eliminate bare bulbs, upward pointing lights, keep light near to or below the horizontal. E.g. flat cut-off lanterns. Such light should be positioned to only illuminate the required areas, limiting light spill, both horizontally and vertically. Additionally, hoods, cowls, louvers and/or shields may be utilised to further direct any lighting.
- Decrease light intensity, avoid the UV spectrum: attracting insects is NOT an aim.
- When external lighting is needed for safety reasons, dynamic lighting schemes that are switched on only when needed should be considered. Dynamic lighting schemes are usually triggered via motion sensors by a pedestrian, bicyclist or cars.
- Timer switch on any proposed outdoor lighting to facilitate dark periods.
- Where planting to block lighting, use temporary fencing to shield light spill until vegetation has matured.

### **7.8 Planting of New Trees**

Replace lost trees on-site with one for every one lost. These should be native species, ideally of local provenance, giving the equivalent or greater biodiversity, high in yields of fruit, nectar or nut. Tree species suitable for planting on site include pedunculate oak (*Quercus robur*); rowan (*Sorbus aucuparia*); silver birch (*Betula pendula*); downy birch (*Betula pubescens*); bird cherry (*Prunus padus*) or other fruit trees.

### **7.9 Hedge Planting**

Hedges could be planted to replace some of the trees lost. A hedge could be planted along the northern boundary of the site, to divide the patio area from the southern half of the garden or along the eastern / western boundaries to strengthen these.

- Hedges should be created from planting native species ideally of local provenance. Suggested species include hawthorn (*Crataegus monogyna*) for its flowers and berries;



hazel (*Corylus avellana*) for its nuts and attracting insects; holly (*Ilex aquifolium*); elder (*Sambucus nigra*); wild privet (*Ligustrum vulgare*); and field maple (*Acer campestre*).

- Use two-year-old pot grown shrubs planted in a double, staggered row at a rate of at least four plants per metre.
- Apply a layer mulch to a depth of 75mm around shrub base to suppress weeds.
- Spiral guards will be used to protect new shrubs from rabbits.
- Plan a monitoring programme during first year of growth. Any saplings which fail to thrive should be re-planted in order to prevent the development of gaps.
- Trim lightly during the first three years.
- Approximately three years following planting, an appropriate management scheme should be established to ensure that it develops into a dense hedgerow which is optimal for protected species.

### 7.10 Bat Roosting Provision

A bat tube should be built into the new property. Bat tubes/boxes erected on properties offer potential bat roosts and augment the natural roosting opportunities. These tubes/boxes should be erected not less than 3m high and ideally 4m plus.

- Bat tubes must be built into the fabric of the building, ideally on the southern and western aspects, and not bolted on to the outside and are therefore only suited to structures, not trees. A choice of styles is sometimes available, and the most suitable style can be agreed with the local planning authority (LPA).
- Where bat-tubes are unsuited owing to the type of construction of the proposed structures, other bat boxes or specifically designed bat habitation of an equally durable condition may be substituted for bat-tubes (subject to LPA approval.)
- Where enhancement recommends bat tubes or bat boxes on structures, aspects of the Artificial Lighting Strategy must be followed to ensure artificial lighting does not shine on the access points /boxes or flight paths.



### 7.11 Bird Nesting Provision

A bird brick should be built into the new property. In-built bird bricks provide a long-lasting solution. Fixing to trees or external wall mountings will only last as long as the nail / screw or branch lasts. Often this is less than ten years. Built in features are likely to last as long as the structure they are built into which might be hundreds of years. Obviously, there may be



occasions where built in solutions are not applicable. LPA approval of external mounted boxes is generally required.

- Only boxes of robust or permanent construction are suitable. Some account must be taken of the potential need to maintain and replace boxes after a number of years in use.
- Boxes/bricks should be positioned with orientation preferably between north and east with external positions of not less than 3m high to avoid cat predation and vandalism.
- Site nest boxes in locations that are accessible for maintenance, but away from bird feeders. Ideally boxes should be a discrete distance away from other nest boxes, except for house sparrows, as they like to nest in colonies.

		
<p><b>House Sparrow Terrace</b></p>	<p><b>Bird brick 24,25,26 to suit varying bird sizes</b></p>	<p><b>Swift</b></p>

### 7.12 Solitary Bee Provision

One solitary bee brick should be built into the property. Solitary bee bricks can be built into buildings, walls and other structures. Each bee brick provides multiple cavities for solitary bees to lay their eggs. The bricks should ideally be built into south-facing, sunny walls, at between one and two metres above ground level and with nectar sources nearby.





### 7.13 Landscaping for the Benefit of Wildlife

Landscaping in sympathy with the needs of native wildlife is relevant to all important wildlife species. It helps to support birds by providing plant species which carry seeds, fruits, nuts, and/or support insects (nectar and pollen) upon which birds feed and supports bats by attracting insects to the garden.

The list below is not exhaustive, neither is it prescriptive, and recommendations in italics can be applied with discretion. The implementation of a combination of recommendations here fulfils the obligation of the client/agent to leave the site in an enhanced state.

- ✓ The landscape architect/or appointed person should plant a variety of flowering plants, biased towards native and near-native species. Exotics are not required; however, a selection of exotics to extend the flowering season and potentially provide resources for specialist groups now and in the future, is becoming increasingly important owing to climatic changes, and should be given serious consideration by any with a view to protecting and sustaining present and future biodiversity. Plant holistically for biodiversity value: nectar rich plants/shrubs which yield fruits /nuts of benefit to a multitude of species.
- ✓ Where grass is planted, use a grass mix other than low amenity lawn grass. Plant mixes with diverse grass species support a wealth of insects when allowed to seed and flower before being cut back.
- ✓ Provide green corridors (hedges/trees/water features/lawns or mixed diversity species and beds) with attention to other neighbouring green spaces. The garden itself, when taken as one of many within the neighbourhood, will become part of a wider green corridor.
- ✓ Select a variety of plants that will produce foods in different seasons. For winter residents as well as migrants that return early in spring, plants that hold their fruits throughout the winter ("winter-persistent" plants) are a vital food source.
- ✓ Leave rough areas of vegetation and native trees and shrubs around the vicinity of any replacement building will also maintain nesting opportunities.
- ✓ Avoid pesticide and insecticide use.
- ✓ For garden areas: improve the area of green habitat within the garden wherever feasible and where paved spaces and balconies must be used also consider:
  - Planters and raised beds
  - Courtyard trees, low level shrubs, hedges
  - Planting climbers and creepers.
- Include features such as bird tables and feeders raised up or protected at the base from squirrel or cat ascent.
- Provide shelter using low shrubs, thickets or hedges where birds can nest, perch, and escape from predators.
- Leave tree stumps, dead wood (where safe to do so) tree limbs, leaf piles and compost to encourage insects and worms for birds to feed on.
- Keep a lid on any water butts.
- Appropriate aftercare and management should ensure that these areas are maintained to give optimum benefit to wildlife.





## 8. Conclusions

The proposed residential development site is considered to be of low ecological value due to the presence of mainly non-native species in an abandoned garden. However the trees and shrubs on site, as well as a derelict greenhouse and shed, provide suitable habitat for nesting birds.

The Extended Phase 1 Habitat Survey that was undertaken on 15/11/2019, along with the desktop survey, are considered to have collected enough information about the ecological condition of the site to have been able to adequately assess the impact of the proposed development. Further survey work is therefore not required.

Mitigation measures have been set out to avoid and reduce the effects/impacts of the development on the important ecological features and the local environment as a whole. These include a Construction Exclusion Zone; the appropriate timing of woody species (trees and shrubs) removal (as well as the greenhouse and shed); and the soft-felling of the ivy-clad pear tree. All measures should be included as a planning condition for the proposed development.

Enhancement measures for biodiversity have also been set out, including the provision one bat tube, one bird brick and one bee brick (all built into the structure of the new property). These enhancements should result in a net ecological gain for the site and should be included as a planning condition for the proposed development.

Providing the recommendations within this report are adhered to, with the mitigation measures and enhancements agreed, there would appear to be no ecological constraints to prevent this development. The local planning authority (LPA) should ensure that the mitigation measures, together with enhancement recommendations, are either 'conditioned' where appropriate, or that full permission is withheld pending the agreement of mitigation, compensation (where necessary) and enhancement measures.

An Ecological Clerk of Works or a suitably experienced ecologist should oversee the implementation of the ecological mitigation measures and the enhancements for biodiversity.

It is the responsibility of all those involved with the proposed development works at Men-a-Vaur, Church Road, Hugh Town, St. Mary's, to ensure that wildlife protection and nature conservation legislation is complied with throughout the lifespan of the development, at every stage. Although no current evidence of protected species was found on site it cannot be assumed that they are not present when the development work commences. Care should therefore be taken during all stages of the development and if any protected are discovered they must not be handled; works must stop immediately, and advice sought from a licensed ecologist.



## 9. References

- Bat Conservation Trust (2009) *Bats and lighting in the UK – Version 3, May 2009*, The Bat Conservation Trust, London.
- Bat Conservation Trust (BCT) "[Landscape and Urban Design for Bats and Biodiversity](#)," by Kelly Gunnell, Gary Grant and Dr. Carol Williams.
- Bennallick, I, Board, S., French, C, Gaaney, P, Neil, C., Parslow, R, Spalding, A. and Tompsett, P. (2009) *Red Data Book for Cornwall and the Isles of Scilly. 2<sup>nd</sup> Edition*. Croceago Press, Praze-an-Beeble.
- British Standards Institute (2013) *Biodiversity – Code of practice for planning and development. BS42020: 2013*. BSI Standards Limited, London.
- CIEEM (2016) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2<sup>nd</sup> edition*. Chartered Institute of Ecology and Environmental Management, Winchester. [www.cieem.net](http://www.cieem.net)
- CIEEM (2017a) *Guidelines for Preliminary Ecological Appraisal, 2<sup>nd</sup> edition*. Chartered Institute of Ecology and Environmental Management, Winchester.
- CIEEM (2017b) *Guidelines on Ecological Report Writing*. Chartered Institute of Ecology and Environmental Management, Winchester.
- Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3<sup>rd</sup> edn.)*. The Bat Conservation Trust, London.
- Cornwall Council (2017) *Accommodating swallows, swifts and house martins: Guidance for developers, builders, surveyors, architects and householders*. Cornwall Council, Truro. <https://www.cornwall.gov.uk/media/3626630/Accommodating-swallows-swifts-and-house-martins.pdf>
- Council of the Isles of Scilly (2005) *The Isles of Scilly Local Plan A 2020 Vision. Adopted November 2005*.
- Council of the Isles of Scilly (2008) *The Isles of Scilly Local Development Framework Supplementary Planning Document. Biodiversity and Geological Conservation Planning Good Practice Guidance for the Isles of Scilly. December 2008*.
- Council of the Isles of Scilly (2019a) *Refusal of Permission for Development: Men-a-Vaur Church Road Hugh Town St Mary's Isles of Scilly. 5 March 2019*.
- Council of the Isles of Scilly (2019b) *Isles of Scilly Local Plan 2015-2030 Pre-submission draft (Regulation 19)*.
- Countryside & Rights of Way Act 2000. HMSO.
- DEFRA (2007a) *Securing a Healthy Natural Environment: an action plan for embedding an ecosystems approach*. PB12853. DEFRA, London.
- DEFRA (2007b) *An Introductory Guide to Valuing Ecosystem Services*. PB12852. DEFRA, London.
- Department of the Environment (1997) *The Hedgerows Regulations 1997: A guide to the law and good practice*. Department of the Environment, London.
- English Nature (2001) *Great crested newt mitigation guidelines*. English Nature, Peterborough, ISBN 1 85716 568 3.
- English Nature (2004) *Bat Mitigation Guidelines*, English Nature, Peterborough.
- Groves, D. (2013) *The Mammals of Cornwall and the Isles of Scilly*. Environmental Records Centre for Cornwall and the Isles of Scilly, Truro.
- HM Government (1981) *The Wildlife and Countryside Act 1981*. HMSO, London.



- HM Government (1991) *The Wildlife and Countryside (Amendment) Act*. HMSO, London.
- HM Government (1992a) *Statutory Instrument 1992 No. 2350* [Variations to Schedules 5 and 8 of the Wildlife and Countryside Act]. HMSO, London
- HM Government (1992b) *Protection of Badgers Act 1992*. HMSO, London.
- HM Government (1994) *The Conservation (Natural Habitats, & C) Regulation 1994*. HMSO, London.
- HM Government (1997) *The Hedgerow Regulations 1997*. HMSO, London.
- HM Government (1998) *Statutory Instrument 1998 No. 878* [Variations to Schedules 5 and 8 of the Wildlife and Countryside Act]. HMSO, London.
- HM Government (2000) *The Countryside and Rights of Way Act 2000*. HMSO, London.
- HM Government (2006) *Natural Environment and Rural Communities Act 2006*. HMSO, London.
- HM Government (2010) *The Conservation of Habitats and Species Regulations 2010*. HMSO, London.
- HM Government (2019) *National Planning Policy Framework. February 2019*. HMSO. [www.gov.uk/government/publications](http://www.gov.uk/government/publications)
- 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 (2004) *Bat Workers Manual*, Joint Nature Conservation Committee, Peterborough.
- Joint Nature Conservation Committee (JNCC) (1993) *Handbook for Phase 1 Habitat Survey*. JNCC Peterborough.
- Joint Nature Conservation Committee, 2010. *Handbook for Phase 1 Habitat Survey - a Technique for Environmental Audit*. Reprinted by JNCC, Peterborough
- JNCC and Defra (on behalf of the Four Countries' Biodiversity Group), 2012. *UK Post-2010 Biodiversity Framework*. July 2012.
- Nature crisis: Humans 'threaten 1m species with extinction' (2019) Matt McGrath accessed 06/05/2019 <https://www.bbc.co.uk/news/science-environment-48169783>.
- Parslow, R. (2007) *The Isles of Scilly*. The New Naturalist Library. HarperCollins Publishers, London.
- Russ, J. & Montgomery, W. (2002) Habitat associations of bats in Northern Ireland: Implications for conservation. *Biological Conservation* 108: 49-58.
- Stace, C. (2009) *New Flora of the British Isles, Fourth edition*. C & M Floristics, Suffolk.
- The British Standards Institution (2013) *Biodiversity – Code of practice for planning and development. BS42020:2013*. The British Standards Institution Limited.
- The British Standards Institution (2012) *Trees in relation to design, demolition and construction – Recommendations. BS5837:2012*. The British Standards Institution Limited.
- Voigt, C.C. *et al* (2018): *Guidelines for consideration of bats in lighting projects*. EUROBATS Publications Series No. 8. UNEP/EUROBATS Secretariat, Bonn, Germany, 62pp.
- Wildlife & Countryside Act 1981, as amended HMSO
- Williams, C. (2010) *Biodiversity for Low and Zero Carbon Buildings: a technical guide for new build*, RIBA Publishing, London.



[www.chaninweb.co.uk/Chanin%20&%20Gubert2012\\_Lutra\\_55\\_1\\_LOWRES.pdf](http://www.chaninweb.co.uk/Chanin%20&%20Gubert2012_Lutra_55_1_LOWRES.pdf)

### **Data Search Websites**

#### Isles of Scilly

- Council of the Isles of Scilly: <https://www.scilly.gov.uk/planning/local-plan>
- Council of the Isles of Scilly Interactive Map:  
<http://cornwallcouncil.maps.arcgis.com/apps/View/index.html?appid=a466954e57394f42b4c2efaa852641ef>
- GB non-native species secretariat: [www.nonnativespecies.org](http://www.nonnativespecies.org)
- Multi Agency Geographical Information for the Countryside: [www.magic.defra.gov.uk](http://www.magic.defra.gov.uk)
- Prevent the spread of harmful invasive plants: [www.gov.uk/prevent-the-spread-of-harmful-invasive-and-non-native-plants](http://www.gov.uk/prevent-the-spread-of-harmful-invasive-and-non-native-plants)
- UK Biodiversity Action Plan: [www.ukbap.org.uk/NewPriorityList.aspx](http://www.ukbap.org.uk/NewPriorityList.aspx)



## 10. Appendices

### Appendix A. Flora Species Recorded Onsite During Extended Phase 1 Habitat Survey

Date: 15 November 2019

Time: 10:45-12:25

Surveyor: Sarah Board

Weather: Heavy showers with intermittent dry spells

DAFOR scale: - Frequency of species on the site: **Dominant-Abundant-Frequent-Occasional-Rare.**

Seasonal constraints may mean specific species were not identifiable and may be on site but not found.

DAFOR	Common Name	Scientific Name
F	Alexanders	<i>Smyrniolum olusatrum</i>
O	Allium	<i>Allium</i> spp.
R	Apple (T3)	<i>Malus</i> spp.
A	Atlantic ivy	<i>Hedera hibernica</i>
O	Australian laurel	<i>Pittosporum tobira</i>
R	Bay	<i>Laurus nobilis</i>
R	Bear's-breech	<i>Acanthus mollis</i>
R	Bracken	<i>Pteridium aquilinum</i>
A	Bramble	<i>Rubus fruticosus</i> agg.
O	Bristly oxtongue	<i>Helminthotheca echioides</i>
O	Cleavers	<i>Galium aparine</i>
O	Common nettle	<i>Urtica dioica</i>
O	Creeping buttercup	<i>Ranunculus repens</i>
O	Dandelion	<i>Taraxacum officinale</i> agg.
R	Dove's-foot crane's-bill	<i>Geranium molle</i>
F	Echium	<i>Echium</i> spp.
F	Elm (T6, T7 and T8)	<i>Ulmus</i> spp.
O	Griselinia	<i>Griselinia</i> spp.
O	Hebe	<i>Hebe</i> spp.
O	Herb-Robert	<i>Geranium robertianum</i>
F	Hogweed	<i>Heracleum sphondylium</i>
R	Hydrangea	<i>Hydrangea</i> spp.
F	Italian lords-and-ladies	<i>Arum italicum</i>
R	Male-fern	<i>Dryopteris filix-mas</i>
O	Montbretia	<i>Crocasmia x crocosmiiflora</i>
A	Nasturtium	<i>Nasturtium</i> spp.



<b>R</b>	New Zealand Christmas tree (T2)	<i>Metrosideros excelsa</i>
<b>O</b>	Oxalis	<i>Oxalis</i> spp.
<b>R</b>	Paeony	<i>Paeonia</i> spp.
<b>R</b>	Pear (T3)	<i>Pyrus</i> spp.
<b>O</b>	Perennial rye-grass	<i>Lolium perenne</i>
<b>O</b>	Red campion	<i>Silene dioica</i>
<b>O</b>	Ribwort spleenwort	<i>Plantago lanceolata</i>
<b>O</b>	Scarlet pimpernel	<i>Lysimachia arvensis</i>
<b>R</b>	Southern beech (unconfirmed) (T4)	<i>Nothofagus nervosa</i>
<b>O</b>	Sowthistle	<i>Sonchus</i> spp.
<b>O</b>	Spurge	<i>Euphorbia</i> spp.
<b>O</b>	Stinking iris	<i>Iris foetidissima</i>
<b>F</b>	Strawberry (cultivated)	<i>Fragaria ananassa</i>
<b>O</b>	Violet species	<i>Viola</i> spp.
<b>O</b>	Wavy bitter-cress	<i>Cardamine flexuosa</i>



## **Appendix B. Summary of the Legislation and Policy relating to Habitats and Species**

### **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.

### **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.

### **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. It is the means by which the Bern Convention and the Birds Directive and Habitats Directive are implemented in Britain. Protected birds, animals and plants are listed in Schedules 1, 5 and 8 respectively of the Wildlife and Countryside Act.

**Schedule 1 Part 1** – Birds which are protected by special penalties at all times from being intentionally killed, injured, or taken and whose eggs, nests or dependent young are also protected from being disturbed.

**Schedule 5 Section 9 Part 1 (killing/injuring)** – Animals which are protected from being intentionally killed or injured.

**Schedule 5 Section 9 Part 1 (taking)** – Animals which are protected from being taken.

**Schedule 5 Section 9 Part 4a** – Animals which are protected from intentional damage to, destruction of, or obstruction of access to any structure or place used for shelter or protection.

**Schedule 5 Section 9 Part 4b** – Animals which are protected from intentional disturbance while occupying a structure or place used for shelter or protection.

**Schedule 5 Section 9 Part 4c** – Animals which are protected from their access to any structure or place which they use for shelter or protection being obstructed.

**Schedule 6** – Animals which are protected from being killed or taken by certain methods under Section 11(1). The methods listed are: self-locking snares, bows, crossbows, explosives (other than ammunition for a firearm), or live decoys.

**Schedule 8** – Plants and fungi which, subject to exceptions, are protected from: intentional picking, uprooting or destruction; selling, offering for sale, possessing or transporting for the purpose of sale; advertising for buying or selling.

**Schedule 9** – Plant and animal species that are prohibited from introducing into the wild as they may cause ecological or environmental harm or where they pose a threat to the native habitats and species. Under Schedule 9 of the Wildlife & Countryside Act 1981 (as amended)



it is a criminal offence to cause any of 48 non-native plant species (6/4/2010) and (non-native animals) to spread into the wild where they cause damage to the environment/economy/health/lifestyle.

The site owner has a responsibility to:

- Prevent invasive, non-native plants on their land spreading into the wild and causing a nuisance.
- Prevent harmful weeds on their land spreading onto a neighbour's property

The owner of the site must not plant in the wild or cause certain invasive and non-native plants to grow in the wild. This can include moving contaminated soil or plant cuttings. If this occurs there is a fine or prison term for up to 2 years. The site owner is not legally obliged to remove these plants or to control them on site. However, at the point of change: **development, mulching, earth moving operations**: it is important that they are identified, and their spread controlled in the most appropriate way.

### **Environmental Protection Act 1990**

[Environmental Protection Act 1990](#) allows for the potential classification of soil and other waste containing viable propagules of invasive non-native plant species as controlled waste. This has been applied to Japanese Knotweed with the result that waste containing this species must be disposed of in accordance with the duty of care set out in section 34 of the Act. The Environment Agency have issued guidance which will be of use in complying with the duty of care.

In addition:

- Any Schedule 9 plant material, or soil containing root or rhizome fragments, may be classified as 'controlled waste' under the Environmental Protection Act 1990 (EPA).
- In addition to a criminal prosecution under the Wildlife & Countryside Act, infringement of the EPA can result in an *unlimited fine*.
- The owner may also be held liable for costs incurred from the spread into adjacent properties and for disposal of contaminated soil off site during development, which later leads to the spread on another site.

### **Protection of Badgers Act 1992**

Both badgers and their setts are protected, making it illegal to kill, injure or take, possess or cruelly ill-treat badgers or to interfere with a badger sett (including blocking tunnels or damaging the sett in any way).

### **The Hedgerow Regulations 1997**

Any hedgerows classified as 'important' under the 1997 Hedgerows Regulations cannot be removed without a Hedgerow Removal Notice issued by the relevant Local Authority unless previously approved as part of a planning permission. The UK Biodiversity Action Plan (BAP) now classifies any native hedge over 20m in length as a priority habitat feature. Priority hedgerows should be those comprising 80% or more cover of any native tree/shrub species. The Local Authority is the arbiter as to classification of hedgerows.

### **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.

### **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. The Act also makes provisions in respect of pesticides harmful to wildlife, the protection of birds, and in respect of invasive non-native species, and also alters enforcement powers in connection with wildlife protection, and extends time limits for prosecuting certain wildlife offences.

Section 41 of the Act requires that the Secretary of State publishes a list of species of flora and fauna considered to be of principal importance for the purpose of conserving biodiversity in England. The list is intended to be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the NERC Act 2006 'to have regard' to the conservation of biodiversity in England, when carrying out their normal functions.

The UK BAP list of 1149 species, published in 2007, was used to draw up a list of 938 species, also known as the 'England Biodiversity List', comprising those species found in England which have been identified as requiring action under the UK BAP. In addition, the Hen Harrier has also been included on the list because without continued conservation action it is unlikely that the Hen Harrier population will increase from its current very low levels in England.

The list of species of principal importance was first published in 2002 by DEFRA under Section 74 of the Countryside and Rights of Way (CRoW) Act 2000, and was identical to the UK BAP list at that time. The CRoW Act Section 74 list has now been replaced by the Section 41 list.

Sixty-five (65) 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.

### **The Anti-social Behaviour, Crime and Policing Act 2014**

[Anti-social Behaviour, Crime and Policing Act 2014](#) enables community protection notices to be served by local authorities or the Police against individuals who are acting unreasonably and who persistently or continually act in a way that has a detrimental effect on the quality of life of those in the locality. These powers are designed to be flexible and could be used to address specific problems caused by widespread species such as Japanese knotweed.

### **The Conservation of Habitats and Species Regulations 2017**

[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 objective 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.

### **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.

**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 (NPPF) 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". Under NPPF, local planning authorities have an obligation to promote the preservation, restoration and recreation of priority habitats, ecological networks and the protection and recovery of priority species as identified under the Natural Environment and Rural Communities Act (2006). Local Planning Authorities will seek to produce a net gain in biodiversity, by requiring developers to design wildlife into their plans and to ensure that any unavoidable impacts are appropriately mitigated for. The NPPF 2019 version replaces the first NPPF published in March 2012 and includes minor clarifications to the revised version published in July 2018.

**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.

**Appendix C. Optimum Protected Species Survey Times**

<b>BATS</b>	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Bat Scoping	[Dark Green Bar]											
Bat Emergence									[Light Green Bar]			
Bat Activity				[Light Green Bar]	[Dark Green Bar]				[Dark Green Bar]	[Light Green Bar]		
Bat Hibernation	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Light Green Bar]							[Light Green Bar]	[Dark Green Bar]

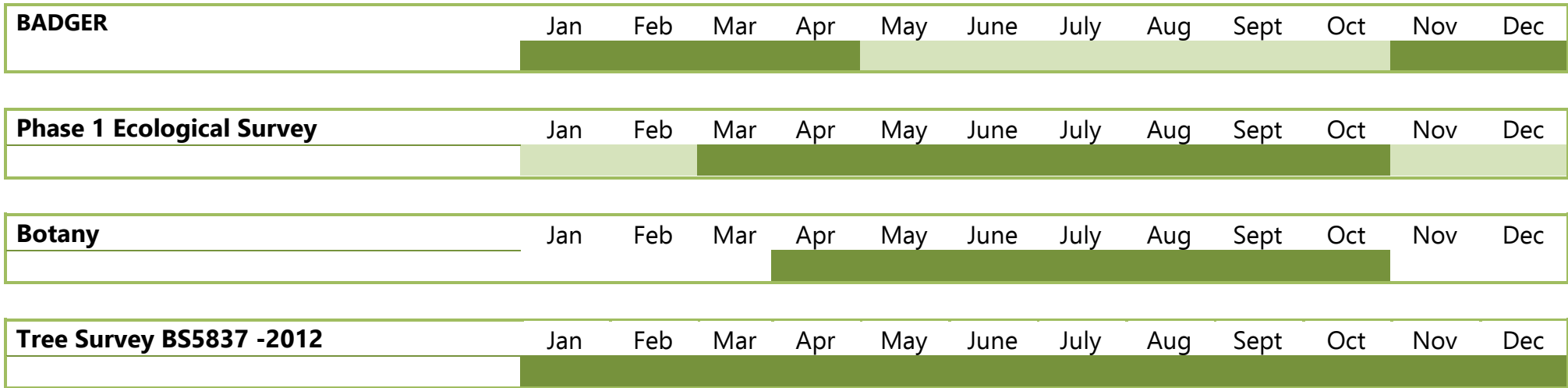
<b>BIRDS</b>	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Birds Breeding			[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Light Green Bar]			
Birds -Other	[Dark Green Bar]	[Dark Green Bar]									[Dark Green Bar]	[Dark Green Bar]

<b>GREAT CRESTED NEWTS</b>	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
GCN - Habitat Assessment	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]
GCN - Presence / Absence			[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]					
eDNA – Survey				[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]					

<b>AQUATIC ANIMALS</b>	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Water Vole			[Light Green Bar]	[Light Green Bar]	[Light Green Bar]	[Light Green Bar]	[Light Green Bar]	[Light Green Bar]	[Light Green Bar]	[Light Green Bar]	[Light Green Bar]	
White Clawed Crayfish				[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]					
Otter	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]

<b>DORMOUSE</b>	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
	[Light Green Bar]	[Light Green Bar]	[Light Green Bar]	[Light Green Bar]	[Light Green Bar]	[Light Green Bar]	[Light Green Bar]	[Light Green Bar]	[Light Green Bar]	[Light Green Bar]	[Light Green Bar]	[Light Green Bar]
				[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]

<b>REPTILE</b>	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
				[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Dark Green Bar]	[Light Green Bar]		



Dark Green = Approximate Optimal Survey Period  Light Green = Approximate Sub-Optimal Survey Period.

Owing to the vagaries of the English climate and the seasonal variation between different parts of the Country, the optimal Survey period might vary by several weeks from this calendar. This should be borne in mind when determining Planning Applications

## Appendix D. Assessing the Potential Value for Buildings for Roosting Bats Survey Method of Buildings.

Where appropriate, the building exteriors and interiors are searched visually, using binoculars, for field evidence of bats, with particular attention being paid to sheltered areas such as window ledges and pipes where bat droppings might lie undisturbed from the weather, insect prey remains, urine stains, oil stains from bats repeatedly moving over a small area and polishing the surface, and the potential presence of bats either dead or alive.

### Classification Criteria

It should be noted that the grading system below only reports on the situation at the time of survey; should bat activity levels change after the initial survey, or should the buildings be modified (for example if roof tiles are removed or fascia boards develop cracks), the category may need revision.

Category (Potential value)	Description
Please note: Intermediate categories (e.g. Low – Moderate value) may apply.	
<b>No/Negligible value</b>	Buildings with no or very few features capable of supporting roosting bats. Often buildings are of 'sound' well- sealed structure or have a single skin and no roof void. They tend to have high interior light-levels, and little or no insulation. Buildings without any roofs may also fall into this category.
<b>Low value</b>	Buildings of largely unsuitable construction, but with a few features of potential value to bats (e.g. gaps above windows, apparently shallow crevices). No supporting evidence (e.g. droppings / staining) found. Buildings may be surrounded by poor or sub-optimal bat foraging habitat, as is often the case in urban-centre locations.
<b>Moderate value</b>	Buildings usually of brick or stone construction with a number of features of obvious potential value to roosting bats e.g. loose roof / ridge tiles, gaps in brickwork, gaps under fascia boards, and/or warm sealed roof-spaces with under-felt.
<b>High value</b>	Buildings with a large number of features of obvious potential value to bats (as above). Bats may be suspected to roost within the building (at least at certain times of year), but no supporting evidence found.







<b>Confirmed roost</b>	Bats discovered roosting within the building or recorded emerging from / entering the building at dusk and / or dawn. Building found to contain conclusive evidence of occupation by bats, such as bat droppings. A confirmed record (as supplied by an established source such as the local bat group) would also apply to this category.
------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## Appendix E. Bat Activity and Bat Emergence Survey Information

### Survey Method of Buildings.

Where appropriate, the building exteriors and interiors are searched visually, using binoculars, for field evidence of bats, with particular attention being paid to sheltered areas such as window ledges and pipes where bat droppings might lie undisturbed from the weather, insect prey remains, urine stains, oil stains from bats repeatedly moving over a small area and polishing the surface, and the potential presence of bats either dead or alive.

### BCT Tree Categories 2016

-  **1\*** - Tree with multiple, highly suitable features capable of supporting larger roosts.
-  **1** - Tree with definite potential, supporting fewer suitable features than Category 1\* trees or capable of supporting roosts for single/low numbers of bats.
-  **2** - Tree with no obvious potential for roosting bats although due to its size and maturity the tree may support some features with limited potential to support bats.
-  **3** - Tree with no roosting potential.

### Development and Planning Trigger for Bat Surveys

#### Bat Emergence

The Emergence Surveys are required to confirm the species, extent of use (in terms of numbers of bats), type of bat use (in terms of seasonality and functionality of use) and bat access points. These details are required to ascertain the requirement for a Natural England EPSL and to provide the information **required by Natural England should** an application prove necessary.

It is dependent upon the results of Emergence Surveys as to whether Natural England (NE) European Protected Species Licences (EPSL) will be required prior to any construction work commencing. Protected Species surveys, such as bat emergence surveys, cannot be conditioned by the LPA and must be completed prior to Planning Applications being determined. Bat Conservation Trust (BCT) guidelines recommend the level of Bat Emergence Surveys required for each circumstance.

Development and planning trigger list for bat surveys, which can be adapted to local circumstances, taken from the Association for Local Government Ecologists (ALGE) template for biodiversity and geological conservation validation checklists 2007, available from <http://alge.org.uk/publications/index.php>

- (1) **Conversion, modification, demolition or removal of buildings (including hotels, schools, hospitals, churches, commercial premises and derelict buildings) which are:**
- Agricultural buildings (e.g. farmhouses, barns and outbuildings) of traditional brick or stone construction and/or with exposed wooden beams;



- Buildings with weather boarding and/or hanging tiles that are within 200m of woodland and/or water;
- Pre-1960 detached buildings and structures within 200m of woodland and/or water;
- Pre-1914 buildings within 400m of woodland and/or water;
- Pre-1914 buildings with gable ends or slate roofs, regardless of location;
- Located within, or immediately adjacent to woodland and/or immediately adjacent to water;
- Dutch barns or livestock buildings with a single skin roof and board-and-gap or Yorkshire boarding if, following a preliminary roost assessment, the site appears to be particularly suited to bats.

(2) **Development affecting built structures:**

- Tunnels, mines, kilns, ice-houses, adits, military fortifications, air-raid shelters, cellars and similar underground ducts and structures; unused industrial chimneys that are unlined and brick/stone construction;
- Bridge structures, aqueducts and viaducts (especially over water and wet ground).

(3) **Floodlighting of**

- Churches and list buildings, green space (e.g. sports pitches) within 50m of woodland, water, field hedgerows or lines of trees with connectivity to woodland or water;
- Any building meeting the criteria listed in (1) above.

(4) **Felling, removal or lopping of:**

- Woodland;
- Field hedgerows and/or lines of trees with connectivity to woodland or water bodies;
- Old and veteran trees that are more than 100 years old;
- Mature trees with obvious holes, cracks or cavities, or that are covered with mature ivy (including large dead trees).

(5) **Proposals affecting water bodies:**

- In or within 200m of rivers, streams, canals, lakes, reed beds or other aquatic habitats.

(6) **Proposal located in or immediately adjacent to:**

- Quarries or gravel pits;
- Natural cliff faces and rock outcrops with crevices or caves and swallets.

(7) **Proposals for wind farm developments**

- of multiple wind turbines and single wind turbines (depending on the size and location) (NE TIN 051 – undergoing updates at the time of writing)

(8) **All proposals in sites where bats are known to be present<sup>1</sup>**

- This may include proposed development affecting any type of buildings, structures, features or location.

**Notes:**

1. Where sites are of international importance to bats, they may be designated as SACs. Developers of large sites 5-10km away from such SACs may be required to undertake a HRA.



**BCT Emergence and Activity Guidelines**

<b>Bat Emergence Survey Requirements</b>		
Extracted from - Table 7.3 & 7.1 BCT Recommended Minimum Survey <b>Effort</b>		
<b>Low Roost Suitability</b>	<b>Moderate Roost Suitability</b>	<b>High / Confirmed roost Suitability</b>
One Survey visit – One dusk or dawn re-entry survey	Two separate survey visits – One dusk and one dawn re-entry survey	Three separate survey visits – at least one must be a dawn re-entry and one a dusk emergence, the other can be either.
<p>Structures that have been categorized as low potential can be problematic and the number of surveys required should be judged on a case by case basis. If there is a possibility that quiet calling, late emerging species are present then a dawn survey may be more appropriate, providing weather conditions are suitable. In some cases, more than one survey may be needed, particularly where there are several buildings in this category.</p> <p>Multiple survey visits should be spread out to sample as much of the recommended survey period as possible, it is recommended that surveys are spaced at least two weeks apart, preferably more. A dawn survey immediately after a dusk one is considered only one visit.</p>		
<b>EMERGENCE – RE-ENTRY Survey Dates</b>		
May to August (structures) No further survey required (trees)	May to September with at least one between May and August	May to September with at least two, between May and August
<p>September surveys are both weather and location dependent. Conditions may become unsuitable in these months, particularly in more northerly latitudes, which may reduce the length of the survey season. Multiple survey visits should be spread out as much as possible; it is recommended that surveys are spaced at least two weeks apart, preferably more, unless there are specific ecological reasons for the surveys to be closer together (for example a more accurate count of a maternity colony is required but it is likely that the colony will soon disperse) if there is potential for a maternity colony then consideration must be given to detectability. A survey on 31<sup>st</sup> august followed by a mid-September survey is unlikely to pick up a maternity colony. An ecologist should use their professional judgement to design the most appropriate survey regime.</p>		

<b>Bat Activity Survey Requirements</b>		
Extracted from - Table 8.3. BCT Recommended Minimum Survey Effort.		
Transect/spot count/timed search surveys		
<b>Low Habitat Value</b>	<b>Moderate Habitat Value</b>	<b>High / Confirmed Habitat Value</b>
One Survey visit per season (Spring- April/May, summer- June/July/August, autumn- September/October) in appropriate weather conditions for bats. Further surveys may be required if these survey visits reveal higher levels of bat activity	One survey visit per month (April to October) in appropriate weather conditions for bats. At least one of the surveys should comprise dusk and pre-dawn (or dusk to dawn) within one 24 hr period.	Up to two survey visits per month (April to October) in appropriate weather conditions for bats. At least one of the surveys should comprise dusk and pre-dawn (or dusk to dawn) within one 24hr period.



than predicted by habitat alone.		
Automatic / static bat detector surveys		
One location per transect, data to be collected on five consecutive nights per season (spring- April/May; summer- June/July/August; autumn- September/October) in appropriate weather conditions for bats.	Two locations per transect, data to be collected on five consecutive nights per month (April to October) in appropriate weather conditions for bats.	Three locations per transect; data to be collected on five consecutive nights per month (April to October) in appropriate weather conditions for bats)
<b>Refer to BCT guidelines document Table 8.3 for further details and dependent conditions where the survey effort is not straightforward.</b>		



## **Appendix F. Wildlife Crime**

<http://www.nwcu.police.uk/what-is-wildlife-crime/>

In general, wildlife crime is any action which contravenes current legislation governing the protection of the UK's wild animals and plants.

A wildlife crime may also be reported and recorded where advice has been given regarding the potential or actual presence of a protected species within a habitat with that habitat then removed/impacted causing actual disturbance/harm/death to that species. Examples in relation to this report may be seasonally pertinent but could include cutting back or removal of a hedgerow where birds and dormice are nesting; removing or doing works to trees where bats roost; cutting grass where reptiles such as slow-worms are inhabiting; filling in or blocking access to badger setts. Specific legislation should be referred to regarding the protection of any animal species or habitat.



## **Appendix G. Habitats Regulation Assessment (HRA)**

Appropriate assessment (or 'Habitats Regulation Assessment', HRA) is one of the most powerful tools currently available to control the environmental impacts of development. Whereas sustainability appraisal is a decision-informing tool, appropriate assessment is often described as a decision-making tool because has the potential to stop development.

Appropriate assessment tests whether a plan or a project is likely to have a significant negative impact on any:

- Special Protection Area (SPA) – a European designation which protects birds
- Special Area of Conservation (SAC) – a European designation which protects habitats
- RAMSAR site – a European designation which protects wetlands.

Jointly, these are called 'European sites'. Appropriate assessment does not apply to other designations, like Sites of Special Scientific Interest (SSSI) or Areas of Outstanding Natural Beauty (AONB).

If the proposed development has the potential to impact up on any of the European sites, the LPA can request an HRA be conducted. The responsibility for conducting such an HRA lies with the LPA, but they can insist that all relevant information is provided to them by the developer.

Proximity to a site is not the defining factor, potential 'impact' is, and for large projects this could be up to 15km from the site. The closer to a protected site, the more likely it is that an HRA will be required, even for a very small site.

## Appendix I Ecological Constraints and Opportunities Plan

Key	
<b>Constraints</b>	
Trees, shrubs greenhouse and shed removal - Requires appropriate timing of removal/cutting back (nesting birds)	●
Ivy-clad pear tree with low bat roosting potential - Requires removal using the soft-felling method	○
Remaining trees/garden area - Requires CEZ (taking account of reflecting RPA of remaining trees)	- - -
Removal of dumped rubbish and garden waste by hand	
Removal of non-native plant species	
Covered trenching and capped pipes	
Artificial Lighting Strategy	
<b>Opportunities</b>	
Hedge planting (showing possible locations)	—
Planting of trees/shrubs	●
In-built bat tube	▲
In-built bird box	◆
In-built solitary bee brick	★

