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## BAT PRESENCE/ABSENCE SURVEYS (PAS)

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### SELECTED BUILDINGS, ST MARY'S HOSPITAL ST MARY'S, ISLES OF SCILLY



*Client: Community 1<sup>st</sup> Cornwall Ltd*

*Our reference: 24-3-8*

*Planning reference: P/24/006/FUL*

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# Executive Summary

<b>Overview</b>
<p>A single Presence/Absence Survey (PAS) was undertaken on relevant aspects of those structures within the St Mary's Hospital site which had potential to support roosting bats and which might be impacted as a result of the proposed extension works.</p> <p>This was to provide an evidence base which accords with the requirement within the Good Practise Guidelines<sup>1</sup> for a single survey to be undertaken on a building of Low Potential. The timing of the survey deviates from the standard May-Sept timeframe outlined in the Guidance, but utilises the scope for variation on seasonal timing which allows that this <i>"should be adjusted (earlier or later) if necessary by the ecologist, bearing in mind the site-specific circumstances, although this should be justified in the survey report"</i>. The justification required to meet this criteria is provided in Appendix 3.</p>
<b>Results</b>
<p>No bats were recorded emerging from the buildings within the Hospital site.</p> <p>The surveys generally recorded low activity levels of common pipistrelle bats foraging or commuting on the boundary of the site, but not associated directly with the buildings themselves.</p>
<b>Mitigation Strategy</b>
<p>The survey was undertaken during the transitional period – the justification for this approach gives due regard to the potential of the buildings; the bat populations present on the islands; the specific climatic conditions on the Isles of Scilly; and the proportionality of delays. A full justification for this approach is provided in Appendix 3.</p> <p>In order to control any residual risk arising from the survey being undertaken in the transitional rather than maternity season, the PAS surveys should be repeated in May 2024. This should be secured through a pre-demolition condition attached to any permission granted.</p> <p>Irrespective of the results of an additional survey, it would be proportionate for works to proceed in line with a Precautionary Method of Working (PMW) which should be incorporated into the Construction Environmental and Ecological Management Plan (CEEMP) for the project. This is outlined in Appendix 4.</p>

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<sup>1</sup> Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London

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# 1. Introduction

## 1.1. Background to Survey

The site is the existing Hospital building with associated outbuildings situated on St Mary's in the Isles of Scilly.

A Preliminary Roosting Assessment (PRA)<sup>2</sup> was carried out in January 2024 and updated in March 2024 – these assessments identified elements of the buildings which offer Low Potential for use by roosting bats.

The PRA report stated that a further Presence/Absence Survey (PAS) would be required to provide an evidence base sufficient to identify the status of the buildings with regards to bats, and inform any mitigation measures required to ensure legislative compliance. This PAS report provides the results of the recommended survey. It should be read alongside the PRA report to provide a comprehensive assessment of the buildings with regards to roosting bats.

## 1.2. Survey Objectives

The PRA report identified the following bat roosting potential with regards to the onsite buildings:

- Buildings B4, B6, B7 and B9 have **Low Potential** to support roosting bats;
- All other buildings have **Negligible Potential** to support roosting bats.

The buildings and classifications are illustrated in Map 01.

The objective of the PAS reported in this document was to observe the relevant aspects of the buildings with roosting potential, and undertake emergence surveys to further assess the use of these features by roosting bats.

In accordance with the Good Practice Guidance<sup>3</sup>, the elements of the building with Low Potential were subject to a single PAS survey.

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<sup>2</sup> <https://www.scilly.gov.uk/sites/default/files/planning-apps/planning-application-p/24/006/ful/P-24-006%20Preliminary%20Ecological%20Assessment%20and%20PRA.pdf>

<sup>3</sup> Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London



**Map 01** – Showing the different buildings identified as part of the PRA survey and referred to in the report. Map reproduced in accordance with Google’s Fair Use Policy.

## 2. Survey Methodology

### 2.1. Surveyor Details

The surveys were led and supervised by James Faulconbridge (B6) and Darren Hart (B4, B7 & B9). Both James and Darren have undertaken Professional Bat Licence training and are Level 2 licenced bat workers with experience in undertaking emergence, re-entry and activity surveys.

Additional surveyors are experienced in undertaking emergence and re-entry surveys and worked under the supervision of the Licenced Bat Workers.

### 2.2. Survey Methodology

The dusk emergence surveys were conducted following Best Practice methodology for bat surveys, with the exception of the seasonal timing of the survey in April– this is justified fully in Appendix 3.

The bat emergence surveys were carried out on the evenings of 11<sup>th</sup> and 13<sup>th</sup> April 2024. The dusk emergence surveys commenced from 15 minutes before sunset and continued until 90 minutes after sunset.

The surveys were undertaken with regard for the appropriate weather conditions ( $\geq 10^{\circ}\text{C}$  at sunset, no/light rain or wind). The timing of the surveys within the agreed mid-April window was selected with regards to the forecast and the risk of changeable weather rendering conditions unsuitable at the end of the window – the two dates selected were chosen to target optimal weather conditions.

Frequency division bat detectors were used to detect and record all bat passes. The surveyors recorded metadata including the time the pass occurred, the behaviour observed (foraging/commuting) and where possible, the species of bat observed. Results from the bat detector recordings were analysed using BatSound/Analook sonogram analysis computer software.

Night Vision Aids (NVAs) were used on all survey positions – these included a Track IR35 thermal imaging camera; a Nightfox Red infra-red video camera; and three Nightfox Whisker infra-red cameras. The footage from these NVAs was watched back to verify or update the survey results confirmed in the field.

### 2.3. Survey Validity and Update

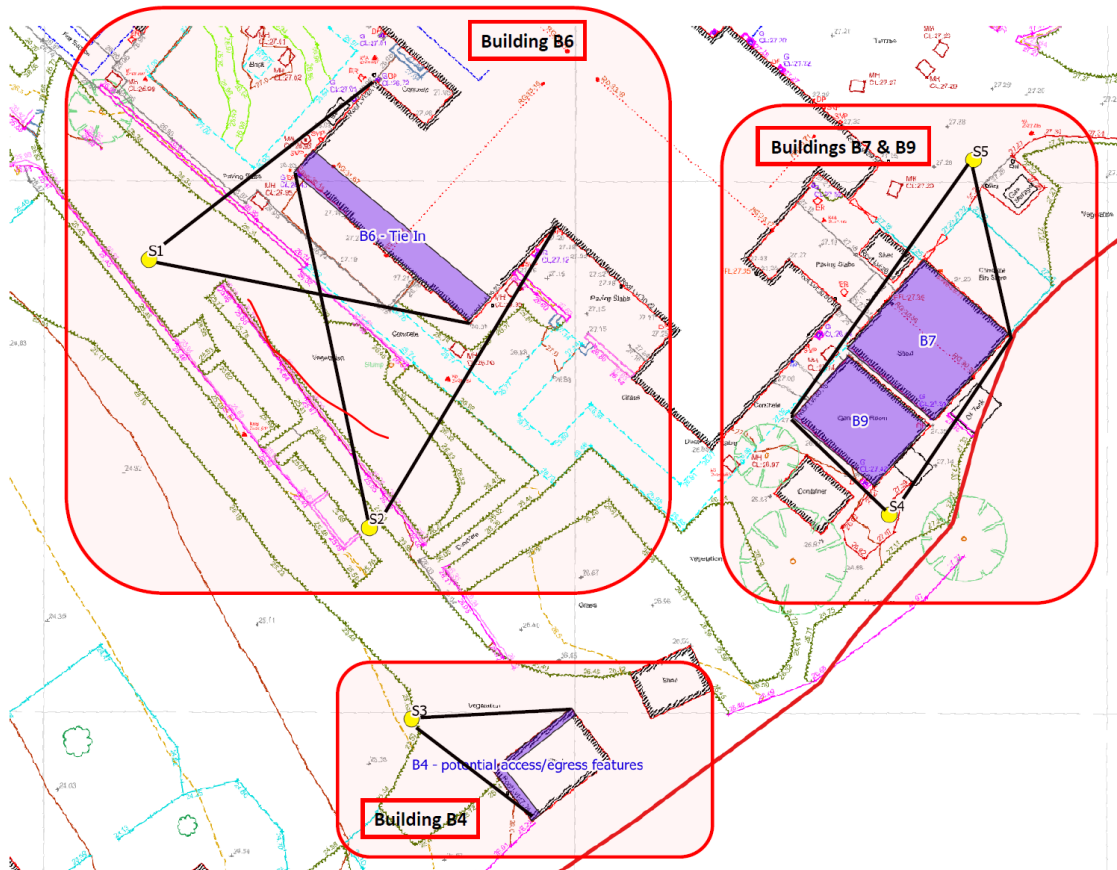
Bats are transient in their use of habitats such as these, and apparently minor changes in condition or use of the building can affect suitability. However in the absence of significant changes in condition or building use, the nature and character of the site suggest that the PAS survey can be considered proportionately valid for a period of 6 months after the survey was completed, until October 2024.



## 3. Results

### 3.1. Surveyor Positions

In order to ensure that the different elements of the buildings received a survey effort of a single bat survey for a Low Potential building (in line with the Best Practice Guidance), five surveyor positions were used. These are identified in Map 02 below.



Map 02 – showing surveyor positions around the buildings.

### 3.2. PAS Survey 1

#### 3.2.1. Survey Aim

The survey included two surveyor positions – S1 and S2 – to observe Building B6 on the aspect where a new modular unit is proposed to be tied in.

#### 3.2.2. Survey Conditions

The dusk survey was undertaken on 11<sup>th</sup> April 2024. The survey commenced at 7:58pm, approximately 15 minutes before sunset at 8:13pm. It was completed at 9:43pm.

The temperature throughout the survey was 12°C - the evening was dry with a light breeze and 50% high cloud cover.

Following the completion of the survey, extended common pipistrelle activity was recorded offsite beneath streetlights on Church Road, Hugh Town and along the shoreline of Town Beach indicating suitable conditions for emergence and sustained foraging behaviour.

### 3.2.3. Survey Results

The emergence survey did not identify any emergence activity from onsite buildings.

Common pipistrelle bats were recorded intermittently foraging along the south-western boundary hedgerow and offsite on this aspect from 8:36pm (approximately 23 minutes after sunset) until towards the end of the survey at 9:35pm.

A review of the NVA footage confirmed this assessment.

## 3.3. PAS Survey 2

### 3.3.1. Survey Aim

The survey included three surveyor positions – S3, S4 and S5 – to observe buildings B4, B7 and B9.

### 3.3.2. Survey Conditions

The survey was undertaken on 13<sup>th</sup> April 2024. The survey commenced at 8:00pm – approximately 15 minutes before sunset at 8:15pm- and completed at 9:45pm.

The temperature was 11°C at the beginning of the survey dropping to 10°C by the end. There was 20% high cloud on a sunny evening with a gentle breeze. There was no precipitation.

### 3.3.3. Survey Results

The emergence survey did not identify any emergence activity from onsite buildings.

The survey confirmed low levels of bat activity in this part of the site – the position of the surveyors away from the south-western boundary hedgerow is likely to reduce recorded foraging in comparison with the PAS undertaken on B6.

The first common pipistrelle was recorded at 9:14pm, approximately an hour after sunset, with occasional additional passes over the next 15 minutes. These were faint and interpreted as offsite foraging behaviour, likely associated with the land to the east.

A review of the NVA footage confirmed this assessment.



### **3.4. Summary and Evaluation**

#### **3.4.1. Overview**

The surveys generally recorded low activity levels of common pipistrelle bats foraging or commuting in the vicinity of the site, but not associated with the buildings or their immediate environs.

The highest levels of activity were associated with the boundary hedgerow to the south-west.

### **3.5. Limitations and Constraints**

#### **3.5.1. Seasonal Timing**

The timing of the surveys was during the transitional period – the full reasoning and justification for this timing is provided in Appendix 3.

#### **3.5.2. Survey Conditions**

The weather conditions were optimal on all survey occasions with no precipitation or other adverse conditions which might be expected to affect bat behaviour.

#### **3.5.3. Visibility and Coverage**

The surveys were comprehensive with regards to surveyor visibility with the exception of the close interface between buildings B7 and B9; however the combination of surveyors and NVAs watching both sides of the buildings would allow any bats emerging from this location to be identified with confidence. No bats were recorded doing so.

#### **3.5.4. NVA Footage**

The interference of artificial light sources (associated with hospital security) affected the quality of images around B6, B7 and B9 due to the contrast between artificial and IR light on adjacent aspects – however a careful review of the footage allowed the results to be confirmed. The constraints are given full consideration in the associated screenshots in Appendix 2.

The absence of any bat passes within an hour of sunset on the locations where these constraints was noted and the comprehensive view permitted by the close presence of surveyor positions to cover relatively small building components provide further confidence to this assessment.

There were no constraints to the NVA footage associated with the survey on building B6.

## 4. Mitigation Strategy

### 4.1. Additional PAS Surveys

#### 4.1.1. Rationale

The survey was undertaken during the transitional period – the justification for this approach gives due regard to the potential of the buildings; the bat populations present on the islands; the specific climatic conditions on the Isles of Scilly; and the proportionality of delays for the project in question. A full justification for this approach is provided in Appendix 3.

In order to control any residual risk arising from the survey being undertaken in the transitional rather than maternity season, it is recommended that the survey is repeated in May 2024. The baseline surveys meet the requirements for determination under ODPM Circular 06/2005 and additional should be secured through a pre-demolition condition attached to any permission granted.

#### 4.1.2. PAS Survey Methodology

The PAS surveys should represent a repeat of the methodology and coverage completed in the initial April PAS and outlined in this report.

#### 4.1.3. Integration of Results

If no bats are found to emerge from the buildings, a report outlining this result would be submitted to the LPA to discharge the condition.

If any bats are identified emerging from the buildings, the works affecting that building would require an European Protected Species Mitigation License (EPSML) in order to proceed. The report submitted to the LPA to discharge the condition would need to include the results along with an outline of the EPSML mitigation strategy to address impacts to bats and roosts present. Additional PAS are likely to be required to support the EPSML in the event of a positive result.

An EPSML would need to be sought from Natural England prior to any works affecting confirmed roosts in order to ensure legislative compliance. The PMW (see Section 4.2) would still apply to those buildings where a negative result was confirmed, but the EPSML would supersede this methodology on any confirmed roosts.

### 4.2. Precautionary Method of Working (PMW)

#### 4.2.1. Rationale

Irrespective of the results of an additional survey, it would be proportionate for works to proceed in line with a Precautionary Method of Working (PMW) which should be incorporated into the Construction Environmental and Ecological Management Plan (CEEMP) for the project.

A PMW is outlined in Appendix 4 of this document and should be followed by contractors undertaking works to the hospital site.

### **4.3. Enhancement Measures**

Provision of bat boxes within the new development were integrated into the design of the scheme<sup>4</sup> submitted for planning – this detail is not repeated here for brevity.

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<sup>4</sup> <https://www.scilly.gov.uk/sites/default/files/planning-apps/planning-application-p/24/006/ful/P-24-006%20Ecological%20Recommendations%20-%20Building%20Integrations.pdf>

## Appendix 1 – Summary of Results

Date	Time	Surveyor Position	Species	Observation
11/4/24	8:36pm	S1	Ppip	Brief pass in the south-western corner of the site
	8:40pm – 8:51pm	S1 & S2	Ppip	Intermittent foraging along the south-western boundary
	9:36pm	S1	Ppip	Brief pass on the south-western boundary
13/4/24	9:14pm & 9:25pm	S3	Ppip	Brief offsite passes (interpreted to be to the east of site) – bats not seen
	9:14pm	S4	Ppip	
	9:18pm	S5	Ppip	
	9:25pm	S4 & S5	Ppip	



**Sample Sonogram** – showing common pipistrelle pass at 9:18pm by Surveyor S5.

## Appendix 2 – NVA Screenshots



**Surveyor 01** – showing footage from the Nightfox Red on surveyor position S1. The view is predominantly replicated by the surveyor and NVA in position S2.



**Surveyor 02** – showing footage from the Track IR35 on surveyor position S2. The view is predominantly replicated by the surveyor and NVA in position S1.



**Surveyor 03** – showing footage from the Nightfox Whisker on surveyor position S3 – note the constraint from artificial light (on the LHS aspect) vs infrared only (on the RHS aspect) – however the surveyor had an excellent, close view of a relatively small area of building and the illumination of key aspects/features was sufficient throughout the period when common pipistrelle and brown long-eared bat (the only two species known to be resident and breeding on the island) would emerge. The result can therefore be confirmed with confidence.



**Surveyor 04** – showing footage from the Nightfox Whisker on surveyor position S4. The FOV restricted full replication of surveyor aspect due to the close proximity of the survey position to the building; focus was therefore on the aspects of the building where Potential Roosting Features (PRFs) were recorded in the PRA. The position however provided optimal conditions for the sureyor with excellent close-range visibility.



**Surveyor 05** – showing footage from the Nightfox Whisker on surveyor position S5 – note the constraint from artificial light (on the RHS aspect) vs infrared only (on the LHS aspect) – however the surveyor had an excellent, close view of a relatively small area of building and the illumination of key aspects/features was sufficient throughout the period when common pipistrelle and brown long-eared bat (the only two species known to be resident and breeding on the island) would emerge. The level of artificial lighting on the aspects on the RHS from a close proximate outside light (on all night for security purposes) would make it highly unlikely that a bat would roost and emerge from this aspect; therefore the focus of the lighting decisions was on the unlit eaves aspect closest to the camera which is in darkness and lit by IR only in this screenshot. The result can therefore be confirmed with confidence.



## Appendix 3 – Justification for April Survey Timing

**Author:** James Faulconbridge (IOS Ecology)

**Reviewer:** Richard Crompton (Ecology On Demand)

The following strategy was set up and agreed with the LPA's Ecological Consultants prior to undertaking the surveys.

### Survey Results Summary

The building assessment outlined in the PEA and PRA report<sup>5</sup> is summarised in the table below with notes on minor updates following refinement of proposals and/or additional internal inspections.

Building Ref	Bat Potential		Impact
	Maternity Roosts	Individual Roosts	
B1, B2, B3, B8, B10	Negligible	Negligible	Demolition/removal
B4	Negligible	Low	Demolition
B5	Negligible	Negligible <sup>6</sup>	Demolition
B6	Negligible	Low	Tie-in of new Modular Units in a single pitched-roof location with no PRF <sup>7</sup> ; and one flat-roof aspect with negligible bat potential. No impacts to the remainder of the structure.
B7	Negligible	Low	Demolition
B9	Negligible	Low	Demolition

The building assessment identifies Low Potential for use by individual roosting bats in a number of buildings – B4, B6, B7 and B9. However, the PRA identifies Negligible Potential for all building structures with regards to maternity use.

<sup>5</sup> <https://www.scilly.gov.uk/sites/default/files/planning-apps/planning-application-p/24/006/ful/P-24-006%20Preliminary%20Ecological%20Assessment%20and%20PRA.pdf>

<sup>6</sup> Identified previously as Low Potential in PRA submitted in support of planning – now downgraded to Negligible after full internal inspection was achieved – evidence supporting this can be provided alongside the PAS results.

<sup>7</sup> At the time of the original PRA in January 2024, the precise impacts to the main hospital structure were not confirmed. Since this has been identified, a return visit was undertaken to inspect the specific locations where the new modular units would be ties in. The pitched roof section has no access points at all – therefore it could theoretically be downgraded below but it is proposed to maintain a ‘low potential’ assessment from an abundance of caution.

The Good Practice Guidelines recommend a single Presence/Absence Survey (PAS) for Low Potential buildings which should be conducted between May and September<sup>8</sup>. However Section 7.2.28 of the guidelines states that:

*“Surveys should be designed around the information that is required to achieve the survey aims. Recommended timings for surveys are given in Table 7.1.... This should be adjusted (earlier or later) if necessary by the ecologist, bearing in mind the site-specific circumstances, although this should be justified in the survey report.”*

This establishes that the dates are guidelines and that variation is acceptable when the specified criteria are met.

In this instance, the following approach is proposed:

- A single PAS in mid-April with survey results to be submitted prior to the Planning Meeting on 18<sup>th</sup> April 2024;
- A further pre-demolition PAS to be conditioned in any consent granted – to be carried out in the summer season to control any residual risk.

The justification for this approach, using Section 7.2.28 as a framework, is as follows:

### **Survey Aim**

The aim is to undertake a single PAS to assess the use of Low Potential buildings for day/transitional use by individual bats to meet recommended survey effort within the Good Practice Guidance.

Assessment of maternity use is not required due to Negligible Potential for this roost type being determined.

### **Good Practice Guidelines for Individual Roosts**

Whilst PAS for individual roosts are often undertaken in the maternity season, individual roosts can be detected throughout the active season from April – September<sup>9</sup>. Roosts used by individuals comprise both transitional and day roosts. The recommendation for a single survey for a Low Potential building necessitates just one of these temporally distinct roost types be routinely surveyed under industry standard survey approaches. Whilst the timeframe for a summer roost arguably covers a longer time period, there are typically a higher number of transitional roosts as females during this time are roosting in a large number of small roosts, rather than in a small number of maternity aggregations.

Section 7.2.26<sup>10</sup> identifies that April is suitable to detect transitional roosts. Within the standard guidelines therefore, the aim of the survey can be met through a mid-April survey. The justification in this instance is further strengthened by considering the climatic conditions in Scilly as detailed in the following section.

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<sup>8</sup> Table 7.1 of the Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition).

<sup>9</sup> Section 7.5.25 of the Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition).

<sup>10</sup> <sup>10</sup> Section 7.5.26 of the Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition).

## Scilly Climate

The guidance with regard survey timings is for the whole of the UK and Section 7.2.28 states that “*timings can be adjusted earlier or later... bearing in mind the site-specific circumstances*”.

The Isles of Scilly are situated off the south-western tip of the UK which puts it at the earliest extreme of the life cycle and survey timings described in the nationwide Good Practice Guidelines. In addition to its geographic position, the small island characteristics mean the weather is significantly stabilised by the buffering effects of the sea, resulting in much more consistent temperatures year-round. Winter weather conditions in Scilly are more akin to spring in the mainland as can be seen in the table below sourced from the Met Office averages (1990 – 2020)<sup>11</sup>.

Month	Average Maximum temperature (°C)	Average Minimum temperature (°C)
January	9.91	6.42
February	9.99	6.26
March	10.89	6.69
April	12.59	7.51
May	14.69	9.53

This results in common pipistrelles being active at a far higher level throughout the winter – a static detector recorded this species on the wing on 78% of nights over a 90 day period from 20<sup>th</sup> January to 20<sup>th</sup> April 2023<sup>12</sup>.

Spring is significantly advanced on the islands compared with the mainland, and it is reasonable to conclude that bat activity levels in mid-April would be akin to May in much of the UK.

## Population Status

The Big Bat Survey<sup>13</sup> was undertaken across all inhabited islands from May – October in 2022 and 2023 – this covered every 500m square in 2023 for a minimum of 4 nights and gives a very strong evidence base to understand the populations of bats on the islands. Backed up by historical and current records from an active local Bat Group, and multiple surveys undertaken for ecological consultancy purposes, the following species composition is determined:

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<sup>11</sup> <https://www.metoffice.gov.uk/research/climate/maps-and-data/uk-climate-averages/gbgebz4kn>

<sup>12</sup> Data recording as part of the Isles of Scilly Wildlife Trust / Scilly Bat Group joint static monitoring project running from 2022 – 2025 – the winter static data will be published in the 2023 results report which is currently in production.

<sup>13</sup> <https://www.ios-wildlifetrust.org.uk/our-projects/big-scilly-bat-survey>

- **Common pipistrelle** is the only widespread resident breeding species found on all inhabited islands;
- **Soprano pipistrelle** were historically present but encounters on the 2022/3 statics are at such a consistently low level that this species is no longer considered to be a resident breeding population;
- **Brown long-eared bat** is confirmed from DNA evidence and radiotracking studies – the distribution of the species is understood to be within Holy Vale and The Garrison where there is significantly higher tree cover than on much of the rest of the islands. Wooded habitat, in line with the widely understood ecological niche of this species, is likely to restrict its distribution on the islands and the area around the hospital is considered suboptimal on this basis;
- **Nathusius pipistrelle** is present at a very low level through the summer and autumn – encounter rates are not consistent with a resident breeding population;
- **Leisler's** is an occasional vagrant in the summer months.

The distance of 28 miles between the mainland and Scilly result in high confidence that this is a stable species composition – only modified by those species which undertake long distance flights such as Nathusius pipistrelle and Leisler's.

The only likely encounter at the Hospital Site therefore is common pipistrelle. Given our knowledge of the population size and/or distribution of other bat species, the chances of their presence on the site is negligible.

### **Precautionary Principle**

A mid-April survey would therefore achieve the aims of the PAS requirements to support a Planning Application in accordance with the Best Practice Guidance and meeting the requirements of the ODPM Circular 06/2005.

The tight timeframe which requires this approach is dictated by the need for planning to be achieved by 18<sup>th</sup> April 2024 to secure project viability. It does not preclude the ability to undertake additional surveys post-determination which would provide a backstop to control any residual risk of summer roosts being identified. A requirement for a pre-demolition PAS could therefore be conditioned in accordance with the Precautionary Principle without compromising the ODPM Circular.

In the unlikely event that a roost is identified by pre-demolition surveys, the legislative protection of bats and roosts would control any risk without further recourse to the LPA. The project already incorporates the installation of 5 bat boxes to create enhanced roosting features post-development which would ensure that the consented development would not require modification in this eventuality. An EPSML would be sought if required to allow works to proceed with legislative compliance.

## **Survey Protocol**

Surveys would be completed with full NVA coverage (Nightfox Whisker/Red or Track IR Thermal Scope) on the buildings and PRF to be impacted. All NVA footage would be reviewed to confirm results post-survey.

Five surveyors would be used to ensure that all aspects of the relevant buildings would be covered. This would be led by one/two licenced bat workers with other surveyors being suitably experienced in undertaking bat surveys and operating under the direction of the licenced bat workers.

The survey would be undertaken between the 10th and 16th April 2024. The window would be used to select the optimal weather conditions within this timeframe which the winter static data indicates is a more significant predictor of activity levels than date. Where possible, the survey would be scheduled towards the end of this window.

## Appendix 4 – Precautionary Method of Working (PMW)

### Rationale

A number of features within the remainder of the buildings B4, B6, B7 and B9 were identified as potentially providing roosting opportunities in the PRA, but no emergence was recorded by the PAS surveys.

As individual bats can be exploratory or make transient use of roosting opportunities, it is important that contractors undertaking the works are aware of the low risk for bats to be encountered and for works to proceed with appropriate caution and vigilance.

These works do not require an EPSML, nor would it be proportionate to stipulate that these be undertaken under ecological oversight by a Licensed Bat Worker

### Methodology Guidance

The following guidance outlines measures required to ensure that contractors are suitably informed of the potential for bats to be present, and undertake works in a manner which minimises the risk of impact to bats in the unlikely event of their presence.

#### Measures entailed by a Precautionary Method of Works

- **Site Induction/Toolbox Talk** - contractors undertaking the works should be informed of the potential for bats to be present in the features outlined in the PRA report. This could take the form of a Toolbox Talk or site induction when contractors commence works on the site.
- **Legal Obligations** - contractors should be aware of their own legal obligations with regards to bats;
- **Caution during Works** - where possible, the features identified in the PRA report should be visually inspected by contractors before works, after which they should be removed carefully and by hand such that in the highly unlikely event of bats being present, they are not crushed and can disperse freely.
- **Fascias** - there are intermittent gaps where the fascias meet the walls on various elements of the buildings. During the initial stages of demolition, fascias would be carefully removed and the gaps behind them exposed in such a way that, in the unlikely event that bats are present, they are not injured or killed by the action. Once these areas are fully exposed, they can be visually inspected by contractors. Any cavities exposed by this action would also be carefully inspected and features dismantled by hand where necessary until absence of bats can be confidently confirmed.
- **Roof Sheets** - there are gaps created where corrugated sheets overlap both on roofs and walls on some structures. There is a negligible potential for these minor gaps to be used by individual roosting bats on an

exploratory/opportunistic basis. As a precaution, the cavities created by the overlaps would be visually inspected using a torch prior to the removal of the sheets. If any bats are present, or suspected, works would pause and the Licenced Bat Worker contracted to review the situation. If it is not possible to fully and comprehensively confirm the absence of bats in these minor niches, then the sheets would be removed carefully and by hand, beginning with the apex sheet and working down the roof or wall until all gaps are exposed and inspected. Care should be taken to lift the sheets in such a way that, in the unlikely event of bats being present, they are not crushed or otherwise harmed by the action. If no bats are present, the sheets can be fully removed and works can continue.

- **Encounter** - in the event of bats being encountered, works should cease and the Licensed Bat Worker contacted immediately for advice. If the bat is in a safe situation, or a situation which can be made safe, they should remain undisturbed. Only if the bat is in immediate risk of harm can the bat be moved with care and using a gloved hand. This is a last resort and should only be undertaken for humane reasons if the bat is at immediate risk of harm and if the Licensed Bat Worker cannot be contacted for advice.