

BAT PRESENCE/ABSENCE SURVEYS (PAS) JULY 2023 UPDATE

TOWN HALL, ST MARY'S, ISLES OF SCILLY



Client: Council of the Isles of Scilly

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Executive Summary

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| Overview |
| Four Presence/Absence Surveys (PAS) were undertaken on the Town Hall building in order to provide an evidence base which meets Best Practice Guidance following the initial findings of the Preliminary Roost Assessment (PRA) report. |
| Results |
| <p>The surveys generally recorded low activity levels of common pipistrelle bats foraging or commuting in the vicinity of the site, but not associated directly with the site itself.</p> <p>Emergence by one common pipistrelle bat was recorded on two occasions – both are from the same roost feature at the gable of the rear porch on the southern aspect of the Town Hall. The emergence behaviour was confirmed on PAS 1 in 2022 and PAS 4 in July 2023.</p> <p>These results are therefore consistent with a non-breeding summer roost by an individual common pipistrelle bat.</p> <p>No other confirmed roosting locations were identified.</p> |
| Mitigation Strategy |
| All ecological recommendations relating to the project are provided in full in the Ecological Assessment (EA) report which accompanies the submission. This PAS document provides supporting evidence including baseline data and justification of assessments, but does not outline mitigation measures. This is to avoid repetition and overlap and to ensure that a single document (the EA) provides a comprehensive ecological mitigation strategy for the project. |
| Report Status |
| <p>No further PAS surveys are required to provide an appropriate baseline to inform the current Planning Application in accordance with the Best Practice Guidance.</p> <p>In conjunction with the PRA and overarching EA report, this report is considered an appropriate ecological baseline to support the Planning Application.</p> |

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1. Introduction

1.1. Background to Surveys

The site is the existing Town Hall building and associated extension located off The Parade in Hugh Town, St Mary's in the Isles of Scilly.

A Preliminary Roosting Assessment (PRA) was carried out in February 2022 and updated in June 2023 – this assessment identified elements of the building which offer low to moderate potential for use by roosting bats.

The 2022 PRA report stated that further PAS surveys would be required to provide an evidence base sufficient to support a Planning Application. Following the PRA update in 2023, a requirement for a further PAS survey was identified to update the results of the 2022 survey.

This PAS report incorporates the 2022 and 2023 PAS results into a single assessment. It should be read alongside the PRA report to provide a comprehensive assessment of the building with regards to roosting bats.

1.2. Survey Objectives

The original 2022 PRA report identified the following bat roosting potential with regards to discreet elements of the Town Hall complex:

- The main hall and rear porch have **low potential** to support roosting bats;
- The 1970's extension and plant room have **moderate potential** to support roosting bats.

The 2023 PRA update included additional structural elements which were out of scope of the original 2022 survey remit, in addition to repeating the features observed in 2022:

- The cottage and stone barn have **moderate potential** to support roosting bats.

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

In accordance with the Best Practice Guidance¹, the elements of the building with low potential were subject to a single PAS survey whilst those elements with moderate potential were subject to two surveys.

¹ Collins, J. (ed.) 2016 Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.

The overall objective is to provide a comprehensive baseline upon which to assess the potential impact of the proposed development works to roosting bats.

2. Survey Methodology

2.1. Surveyor Details

The surveys were led and supervised by Darren Hart. Darren has undertaken Professional Bat Licence training and is a Level 2 licenced bat worker 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 Worker.

2.2. Survey Methodology

The dusk emergence and dawn re-entry surveys were conducted following Best Practice methodology for bat surveys.

The 2022 bat emergence surveys were carried out on the evenings of 3rd June and 16th June 2022. The dusk emergence surveys commenced from 30 minutes before sunset and continued until 90 minutes after sunset.

The 2022 dawn re-entry survey was carried out on the morning of 11th June 2022. The dawn re-entry survey commenced 90 minutes before sunrise and continued until 20 minutes after sunrise.

The 2023 update survey was carried out on the evening of 6th July 2023. The timings followed the same specification as those completed in 2022.

The surveys were undertaken with regard for the appropriate weather conditions ($\geq 10^{\circ}\text{C}$ at sunset, no/light rain or wind).

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. A thermal imaging scope was used on the dusk survey targeting the rear porch (PAS 3).

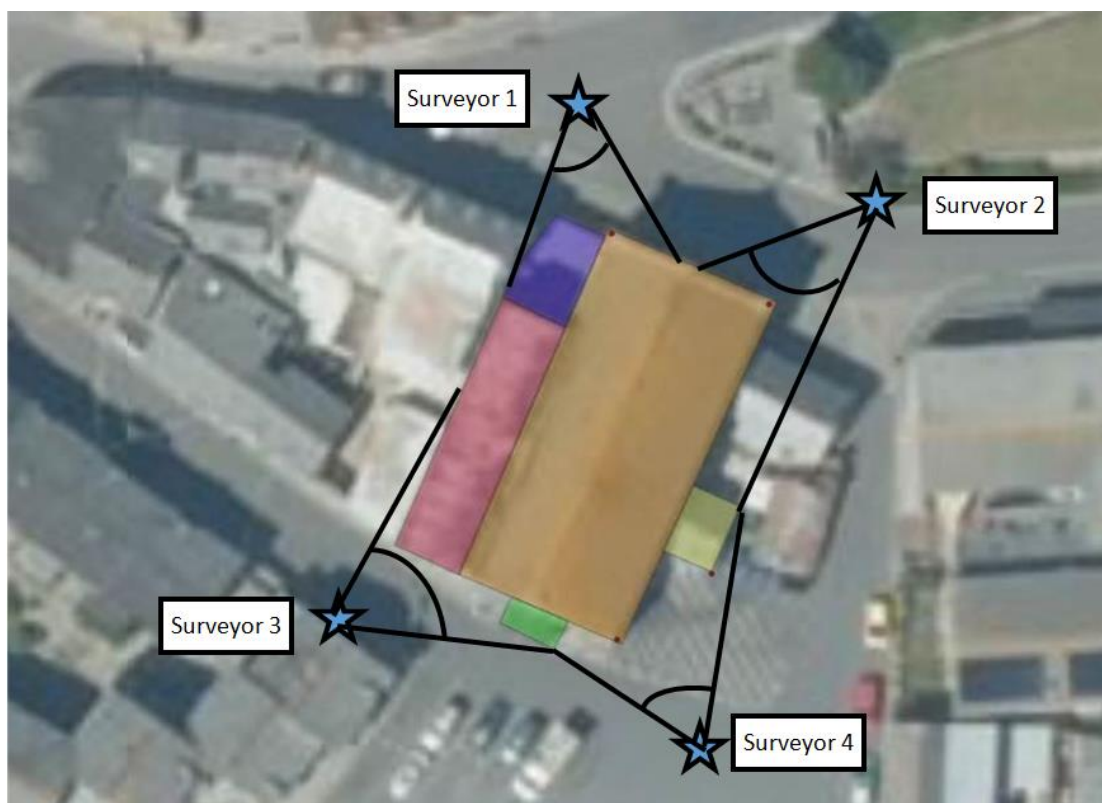
2.3. Survey Validity and Update

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. 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 12 months after the survey was completed, until July 2024.

3. Results

3.1. Surveyor Positions (2022)

In order to ensure that the different elements of the building received a survey effort in line with the Best Practice Guidance appropriate to their potential (as identified in the PRA survey) four surveyor positions were identified in 2022. These are identified in Map 01 below.



Map 01 – showing surveyor positions around the building. The different elements of the building are identified by different colours - the main hall (orange), 1970's extension (pink); front porch (purple); rear porch (green) and plant room (yellow).

3.2. PAS Survey 1

3.2.1. Survey Aim

The survey included all four surveyor positions to observe all aspects of the buildings within scope in 2022. This is to provide the single survey required for Low Potential elements of the building; and a first of two surveys for the Moderate Potential elements of the building.

3.2.2. Survey Conditions

The dusk survey was undertaken on 27th May 2022. The survey commenced at 8:45pm, approximately 35 minutes before sunset at 9:19pm. It was completed at 10:49pm.

The temperature at the beginning of the survey was 13°C falling to 12°C by the end of the survey. The evening was still and clear with 2% cloud cover and a windspeed of 6mph. There was no precipitation.

3.2.3. Survey Results

The emergence survey identified a single emergence of a common pipistrelle at 9:50pm approximately 30 minutes after sunset. The precise location was not confirmed but the emergence was observed by surveyors in positions 3 and 4, and the rear porch was identified as the most likely emergence location.

The surveyor in position 1 recorded brief common pipistrelle foraging over the road to the north of the building around 40 minutes after sunset but no other activity. The surveyor in position 3 recorded intermittent foraging/commuting behaviour by common pipistrelle bats from around 9:50pm and continuing intermittently until the end of the survey. Other positions recorded little or no bat activity.

3.3. PAS Survey 2

3.3.1. Survey Aim

The survey included surveyor positions 2, 3 and 4 to provide the second of two surveys for the Moderate Potential elements of the building. Survey position 1 was not required as the features observed by this surveyor in the first PAS survey was of Low potential and thus only required a single survey to meet the survey effort recommended in the Best Practice Guidance.

3.3.2. Survey Conditions

The dawn survey was undertaken on 11th June 2022. The survey commenced at 3:45am and completed at 5:32am, approximately 15 minutes after sunrise at 5:17am.

The temperature at the beginning of the survey was 14°C falling to 13°C by the end. The sky was clear with 1% cloud cover and a moderate 15mph north-easterly wind although conditions on the site were still and sheltered. There was no precipitation.

3.3.3. Survey Results

The survey identified no re-entry by bats.

The surveyor in position 2, observing the northern aspect, recorded brief foraging by common pipistrelle bats along the road ceasing approximately 45 minutes before sunrise. The surveyor in position 3 to the south of the building recorded occasional bat passes which ceased approximately an hour before sunrise. Other positions recorded little or no bat activity.

3.4. PAS Survey 3

3.4.1. Survey Aim

The survey was undertaken by a single surveyor in position 3 with the specific aim of establishing the precise location of the emergence recorded in the initial PAS 1 survey.

3.4.2. Survey Conditions

The survey commenced at 9:00pm, approximately 30 minutes before sunset at 9:31pm. The survey was completed at 11:06pm.

The temperature remained at 17°C throughout the survey on a clear night with around 20% high, thin cloud. The wind was 12mph and there was no precipitation.

3.4.3. Survey Results

The survey did not record any emergence by bats.

Occasional foraging was recorded in the proximity of the site but not associated directly with onsite habitats. This commenced from around 10:07pm, 36 minutes after sunset, and continued until around 11pm.

3.5. Surveyor Positions (2023)

In order to ensure that the different elements of the building received a survey effort in line with the Best Practice Guidance appropriate to their potential (as identified in the PRA survey) four surveyor positions were identified in 2023. The arrangement was varied from 2022 in order to explicitly include the cottage and stone barn which were functionally included through sight lines in 2022. These are identified in Map 02 below.



Map 02 – showing surveyor positions around the building. The different elements of the building are identified by different colours - the main hall (orange), 1970's extension (red); front porch (blue); rear porch (green), plant room (yellow), cottage (dark purple) and stone shed (light pink).

3.6. PAS Survey 4

3.6.1. Survey Aim

The survey included all four surveyor positions to update the results of the 2022 surveys and observe all aspects of the buildings including the expanded scope in 2023.

3.6.2. Survey Conditions

The dusk survey was undertaken on 6th July 2023. The survey commenced at 9:20pm, approximately 15 minutes before sunset at 9:35pm. It was completed at 11:05pm.

The temperature throughout of the survey was 16°C. The evening was dry and warm with a low-moderate breeze and 85% cloud cover. There was no precipitation.

3.6.3. Survey Results

The emergence survey identified a single emergence of a common pipistrelle at 10:04pm approximately 30 minutes after sunset. The roost is confirmed as from the gable of the rear porch, supporting the suspected location from 2022.

The surveyor in position 2 recorded brief common pipistrelle foraging over the road to the east of the building around 40 minutes after sunset but no other activity. Other positions recorded little or no bat activity.

3.7. Summary and Evaluation

3.7.1. Overview

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

3.7.2. Confirmed Roost

A single emergence by a one common pipistrelle bat was recorded first in 2022 during PAS 1 and confirmed in 2023 in PAS 4. This bat was not recorded entering or leaving the roost on PAS 2, or on PAS 3 which specifically observed this location.

The roost is confirmed as the gable of the rear porch of the Town Hall building.

These results are therefore consistent with a non-breeding summer roost by an individual common pipistrelle bat.

3.7.3. Requirement for Further Surveys

No further surveys are required to provide an appropriate baseline to inform the current Planning Application in accordance with the Best Practice Guidance.

Careful consideration of the survey scope and surveyor visibility in 2022 concluded that the cottage and the stone shed, though not explicitly observed, were functionally included in the 2022 surveys. This meant that a single survey in 2023 which explicitly includes these buildings was considered an appropriate survey baseline. This is based on the following considerations:

- Sight lines of surveyors in positions 2 and 4 in 2022 would include the cottage and stone barn;
- The cottage and stone barn were explicitly identified as peripheral features to watch in 2022 surveyor notes. It was acknowledged that, though out of scope originally, their proximity to the Town Hall would make any roost of relevance with regards to indirect disturbance impacts;
- Surveyors recorded all bat passes and none of those recorded in the 2022 surveys could have corresponded with emergence from/re-entry to the cottage or stone barn.

3.8. Limitations and Constraints

3.8.1. Seasonal Timing

The timing of the surveys was within the Best Practice window of late-May to early-September 2022 and the surveys were spaced appropriately with PAS 1 and PAS 2 spaced two weeks apart.

PAS 3 was undertaken within a week of PAS 2, but as this final survey had a specific objective of gathering further information on a confirmed roost, the longer spacing required to provide appropriate survey effort for potential-only surveys was not required.

PAS 4 was undertaken the following season in 2023.

3.8.2. 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.

3.8.3. Visibility and Coverage

The surveys were relatively comprehensive with regards to surveyor visibility; however it was not possible to directly observe some locations including the western aspect of the Town Hall roof, or the eastern/western aspects of the 1970's extension. The survey strategy was specifically designed to minimise this limitation and surveyors were instructed to make careful records of key flight paths so that they could be cross-referenced with other surveyors' observations. In this way, it would be possible to identify bats which may have emerged or returned to roosts in these locations such that further survey work may be required. The surveyors did not identify any such behaviour which, coupled with the overall low activity levels, provides sufficient confidence that there bats were not accessing unobserved roost sites within the building during the PAS surveys.

There remains a residual risk of bats accessing the western aspect of the 1970's extension through flight paths due west – these may not have been observed if they had occurred due to lack of access. This residual risk will be addressed through a recommendation for pre-commencement inspections outlined in the mitigation strategy.

4. Mitigation Strategy

For clarity, all ecological recommendations relating to the project are provided in full in the Ecological Assessment (EA) report which accompanies the submission.

This PAS document and the PRA document provide supporting evidence including baseline data and justification of assessments, but they do not outline mitigation measures. This is to avoid repetition and overlap and to ensure that a single document provides a comprehensive ecological mitigation strategy for the project.