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REPORT FOR BAT EMERGENCE/RETURN SURVEYS OF BUILDINGS AT HIGH MEADOW SALTWOOD HYTHE CT21 4QJ AUGUST/SEPTEMBER 2022

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1. INTRODUCTION AND SITE DESCRIPTION

Sean McMinn of Marsh Environmental, was commissioned to undertake a series of bat emergence and return surveys of two buildings at High Meadow, Saltwood, Hythe, Kent CT21 4QJ.

Greenspace Ecological Solutions undertook the initial Preliminary Ecological Appraisal and identified two buildings where further investigation into the presence of bats was recommended.

Marsh Environmental carried out the surveys on the main house and the smaller concrete outbuilding/air raid shelter as recommended by Greenspace Ecological Solutions on two buildings B1 & B2 as referenced by Greenspace Ecological Solutions Ltd in their initial report.

The main house has suffered extensive fire damage with most of the roof missing with very few potential bat roosting opportunities remaining. The outbuilding (air raid shelter) is a low, brick and concrete building with a flat and metal concrete roof.

The objectives of this survey were:

- **to undertake a combination of dusk and dawn emergence and return surveys in relation to bats and to see if bats are roosting in either of the buildings and to try and establish the number, species and type of roost should bats be present.**

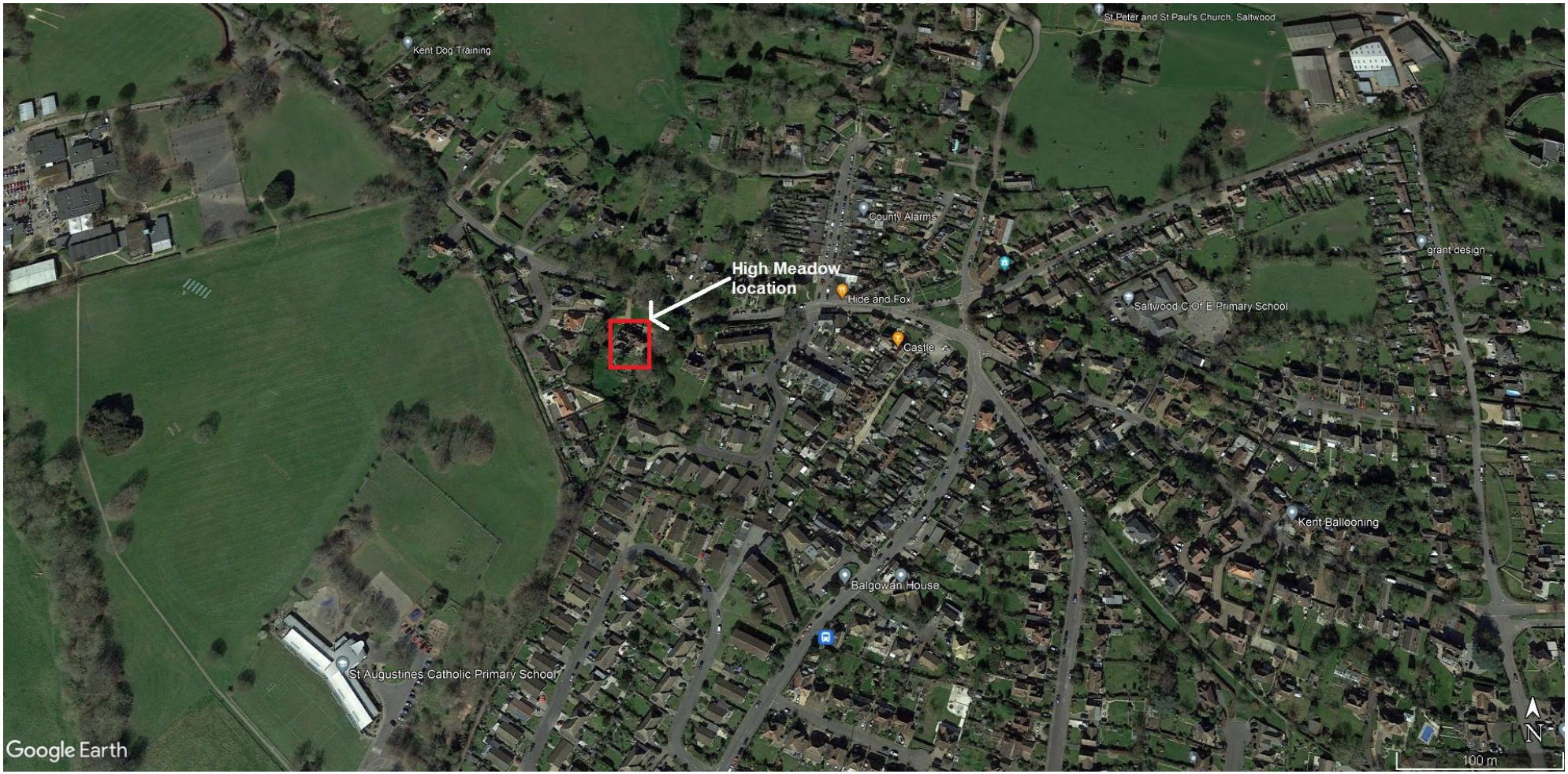
- **report the survey findings and make any appropriate recommendations to ensure compliance with wildlife law and recognised best practice.**

The surveyors :

Sean McMinn- has more than 20 years experience working as a licensed bat ecologist and is also a Natural England Bat roost visitor/warden for more than 20 years.

Bob Gomes - has more than 6 years experience of bat surveying.

FIGURE 1: HIGH MEADOW LOCATION



2. LEGAL STATUS OF PROTECTED SPECIES

Bats

In England, Scotland and Wales all bat species are fully protected under the Wildlife and Countryside Act 1981, through inclusion in Schedule 5. All bats are also included in Schedule 2 of the Conservation (Natural Habitats, &c.) Regulations 1994 (or Northern Ireland, 1995), which defines European protected species of animals.

It is therefore illegal to:

- Intentionally or deliberately kill, injure or capture (take) bats
- Deliberately disturb bats (whether in a roost or not)
- Damage, destroy or obstruct access to bat roosts
- Possess or transport a bat or any part of a bat, unless acquired legally
- Sell, barter or exchange bats, or parts of bats.
- A bat roost is any structure or place which any wild animal uses for shelter or protection, because bats tend to reuse the same roosts, legal opinion is that the roost is protected whether or not the bats are present at the time.

3. BAT EMERGENCE SURVEY METHODS & RESULTS

One licensed chiropterist and one assistant bat surveyor, **Bat Survey License number 2015-11446/7-CLS-CLS** from Marsh Environmental surveyed the main house on the 1st and 22nd August and the outbuilding on the 12th September 2022.

Equipment included two 1x10^{6}cd (one-million candlepower) lamps, two heterodyne bat detectors, one Echo Meter Touch2 Pro, 10x42 binoculars and 2x Pulsar Axion XM30s Thermal Imager. Recordings were made to MP3/Compact Flash and IOS recorders for subsequent analysis using Bat echolocation software.

Weather conditions for the bat detector survey were suitable for bat surveys with temperatures of 15°-21°C, light winds and humidity of 63-91%.

The vespertine survey recorded all bats seen or heard between 19:00-22:15hrs and the auroral survey between 04:15-06:15hrs, noting type of bat activity, direction of flight and time of any observations with particular emphasis on any bats emerging and returning from the building.

Dusk emergence Survey

Table 1: Results of dusk bat emergence survey of the house o1 August 2022.

Date	**Manual surveys observations made**
01 August 2022 Sunset: 20:43 Start: 20:15hrs	Surveyors on site. Weather 4/8 cloud cover with little wind, dry. Air temperature was measured at dusk as 21˚C with a humidity of 63%.
21:03 1 x common pipistrelle flew across rear garden. 21:07 1 x common pipistrelle over front garden. 21:30 1x common pipistrelle overhead then flew west over pool.	
22:15hrs	Survey end. No bats were recorded emerging from any side of the building. General bat activity was low considering the surrounding habitat is good for foraging bats.

Dusk emergence Survey

Table 2: Results of dawn bat return survey of the house on 22 August 2022.

Date	Manual surveys observations made
22 August 2022 Sunrise: 05:53 Start: 04:15hrs	Surveyors on site. Weather overcast no wind. Air temperature was measured at dawn as 15.5˚C with a humidity of 91%.
04:40 1x brown long-eared bat heard briefly by trees. 05:11 1x common pipistrelle flew around trees then flew west. 05:18 1x brown long-eared bat flew north east. 05:19 1x common pipistrelle foraging along trees at rear of house.	
06:15hrs	Survey end. No bats were recorded returning to any of the potential bat roosting features remaining on the main house.

Dusk Emergence survey

Table 3: Results of dusk emergence survey of the outbuilding on 12th September 2022.

Date	Manual surveys observations made
12th September 2022 Sunset: 19:18 Start: 19:00hrs	Surveyors on site. Weather, overcast, calm. Air temperature was measured at dusk 21˚C with a humidity of 76%.
19:00 Internal survey of building looking for evidence of any bat activity, none recorded and no evidence of live animals or droppings. Thermal imager used to highlight roosting animals in crevices. None were found. 19:16 1 x common pipistrelle seen and heard along trees bordering the main road. 19:26 1x common pipistrelle foraging in same area. 19:30 1x soprano pipistrelle foraging around the same section of trees. 19:30 – 20:30 regular foraging around trees by both common & soprano pipistrelles. No further bat activity recorded	
20:30hrs	Rain started and survey end. No bats were recorded emerging from the outbuilding.

4. CONCLUSION

The results of the emergence/return surveys recorded three species of bat, brown long-eared, common and soprano pipistrelle in the general surrounding areas of trees and boundary vegetation. Most bats were recorded flying across the site from the direction of a neighbouring property. It is considered that 1-2 individuals of each species accounted for the recorded bat passes.

The results of the surveys did not record any bats exiting or returning to the burnt out main house or exiting the outbuilding on any of the surveys.

It is therefore considered that bats are not currently using the house or outbuilding as roosting sites.

As a result of the above conclusion no further survey or mitigation in respect of bats is recommended.

5. POSSIBLE ENHANCEMENT OPPORTUNITIES FOR BATS

The following can be incorporated; most ideally during the design process or subsequently after building work has been completed:

- Dormer entrance to roof space
- Ridge ventilators adapted as bat access points
- Lead Saddle in place of slate to allow bat access to ridge or roof void
- Access slits in soffits
- Walling bricks for creating bat access points using purpose made bat bricks
- Bat boxes positioned on buildings and trees do not use bat boxes as a like-for-like replacement for existing roosts
- Designing purpose built bat roost in loft space

6. REFERENCES

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APPENDIX 1: PHOTOGRAPHIC RECORD

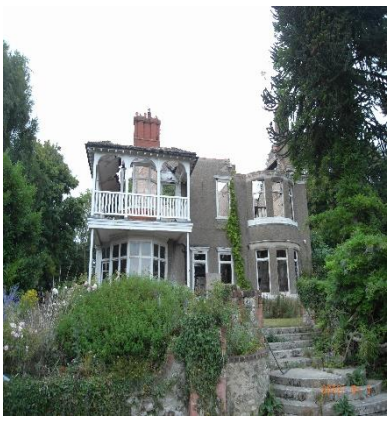
Main House

Peg tiled roof

Side view

Rear view

Rear view



Side view

Hanging tiles

Peg tiled roof

Brick/concrete outbuilding