



Willowbrae, The
Warren,
Caversham,
Reading,
Berkshire, RG4
7TQ

Dusk Bat Activity Survey Report

July 2021

Ref: 21-8900



QUALITY STANDARDS CONTROL

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Revision	-	
Date	19/07/2021	28/03/2022
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Note

The advice which we have prepared and provided within this report is in accordance with the CIEEM Code of Professional Conduct. We confirm that the opinions expressed are our true and professional opinions. Opinions and information provided in the report are based on Syntegra Group Ltd using reasonable skill, care and diligence in the preparation of the same in compliance with the CIEEM Code of Professional Conduct.

Validity of Data

The findings of the site survey are valid for a period of 24 months from the date of the survey. If approved works have not commenced by this date, then an updated site survey could be required to inform any changes to the habitats present on site in order to inform any updated mitigation and or precautionary measures required on site.

LIMITATIONS

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The methodology adopted and the sources of information used by SC in providing its services are outlined in this report. The work described in this report was undertaken in **2021** and is based on the conditions encountered and the information available during the said period of time. The scope of this report and the services are accordingly factually limited by these circumstances.

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No allowance has been made for changes in prices or exchange rates or changes in any other conditions which may result in price fluctuations in the future. Where assessments of works or costs necessary to achieve compliance have been made, these are based upon measures which, in SC's experience, could normally be negotiated with the relevant authorities under present legislation and enforcement practice, assuming a proactive and reasonable approach by site management.

Forecast cost estimates do not include such costs associated with any negotiations, appeals or other non-technical actions associated with the agreement on measures to meet the requirements of the authorities, nor are potential business loss and interruption costs considered that may be incurred as part of any technical measures.

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1 Introduction

1.1. Syntegra Group was commissioned by the applicants, Miia Laurikainen and Tim Putnam, to conduct a further dusk bat activity survey at Willowbrae, The Warren, Caversham, Reading, Berkshire, RG4 7TQ, (Grid Ref: SU 69637515) in support of a planning application for a proposed new dwelling. The dusk survey was carried out on the 16th of July 2021.

1.2. The site comprises of a detached dwelling set within hardstanding ground and is further bound by improved grassland, hedgerows, trees, River Thames, and ornamental planting. The dwelling at the time of the survey was not in use.

1.3. The preliminary roost assessment was carried out in May 2021 by Syntegra Group. The external survey of the dwelling noted potential access points and crevice roosting opportunities within the roof space. The internal survey noted two loft spaces with limited potential access points and limited crevice roosting opportunities. No signs of bats in the form of droppings, debris, marks or stains were noted at the time of the survey. The dwelling was deemed as low potential, given the restricted spaces of the identified access/crevice areas hence reducing the potential for individuals to obtain desired microclimatic needs. The habitats on site are of high potential for use by bats as both foraging and traversing grounds given the mature trees, hedgerows, and boundary River Thames. The wider landscape contains deciduous woodland and the River Thames which are of higher value for local traversing and foraging bats.

1.4. Use of DEFRA's MAGIC Maps returned eight known EPSM applications for known bat roosts within 2km of the site. The applications ranged from 2010 to 2016 for the damage and or destruction of known resting places and breeding sites for common pipistrelle, brown long-eared, and soprano pipistrelle. The closest application was for the destruction of known resting places for common pipistrelle, 120m east of the site (2015).

1.5. In line with BCT Guidelines (2016), buildings with low potential require one dusk survey or one dawn survey carried out during the active season (May to August inclusive). The further study is required to determine likely absence and/or confirmed presence. The further survey will inform the mitigation strategy required for the site proposals.

2 Limitations

2.1. This report only applies to the proposals disclosed at the time of survey. Any alterations may render the report void and/or require further surveys and should be communicated to the ecologist at the earliest opportunity.

2.2. The echolocation surveys were undertaken during July, within the optimal survey period stated in published guidance from the Bat Conservation Trust (Collins, 2016). The dusk echolocation survey was undertaken when temperatures were 10°C or above, no strong winds and/or no rain, which are the recommended survey parameters stated within guidance from the Bat Conservation

Trust (Collins, 2016). As such there are no limitations associated with the timing and weather conditions of the survey.

2.3. Bat surveys are subject to numerous variables, and it is to be acknowledged that survey results represent a sample of bat activity at the time of survey and that it is possible that bats may use the building at other times.

2.4. Species such as brown long-eared bats emit echolocation calls of low amplitude which may not always be picked up on bat detectors. Bat calls in general cannot always be identified to species level. This can be due to distance or environmental conditions (such as bats flying in cluttered environments) or a similarity in calls between some species of bats. Where this occurs, it is recorded as what bat species it is most likely to be based on the call characteristics (e.g Pipistrelle sp. / Myotis sp.) or will be recorded as 'unidentified species'.

2.5. Bats are known to use a variety of roosts at different times of year and for different purposes (ranging from maternity, swarming and hibernation roosts with large numbers of individuals, to night-time feeding roosts or day roosts with a few individuals). It is also known for bats to be nomadic and can spend varying lengths of time in a variety of roosts. As such it is possible that small, transient roosts may not be picked up on a single survey visit.

2.6. The client is responsible for reading and understanding the advice given in this report. The client must ensure that, where recommended, mitigation is followed through.

3 Methodology

3.1. On the 16th of July 2021, the dusk echolocation study was carried out. The survey was undertaken by two experienced ecologists. The survey was led by Patricia Holden MSc MCIEEM bat licence (bat licence: 2016-20440-CLS-CLS) and her assistant Cali Eastwick-Field. Both surveyors are experienced ecologists who have undertaken numerous bat surveys and have undergone professional training in bat surveying techniques.

3.2. The dusk study followed survey guidelines set by the Bat Conservation Trust Bat Surveys Good Practice Guidelines (Collins 2016). The activity survey was undertaken in suitable weather conditions and carried out by two experienced bat ecologists positioned around the site from fifteen minutes before sunset and remained on site for ninety minutes post sunset. Based on the layout of the site, coupled with only three points of potential on the front and rear elevations, only two surveyors were required. The ecologists had view of all potential features noted and the building had adequate cover during the activity survey. The surveyors used heterodyne bat detectors to listen for echolocation calls and any bat passes were also recorded in frequency division and later analysed. Any bat sightings were noted including the time, location, behaviour, and call.

3.3. Surveyors used a combination of visual observation and echolocation detection to identify any bats emerging from the building. Batbox Duet detectors in combination with Echometer Touch Pro detectors were used. The detectors record in both heterodyne and frequency division formats.

Kaleidoscope software was used to analyse sonograms of any calls which could not be identified in the field.

4 Results

4.1. Dusk Echolocation Survey

4.1.1. The dusk activity survey was carried out on the 16th of July 2021, with sunset at 21:14. Conditions were suitable with light winds (3 mph), 0% cloud cover and 22°C. End survey conditions were suitable with 0% cloud cover, light winds (4mph) and 20°C. The survey times followed BCT guidelines (Collins 2016) with the survey commencing at 20:59 and ending at 22:50. One surveyor was positioned at the rear of the dwelling and one surveyor was positioned at the front of the dwelling. The surveyors were positioned to observe the potential roosting features identified during the PRA survey. Refer to Figure 1, that shows the areas of potential and the position of the surveyors ensuring full coverage in line with survey guidelines.

4.1.2. The northern (front) surveyor recorded and observed traversing and foraging common pipistrelle, noctule, long-eared, and soprano pipistrelle. Given the emergent times of the soprano pipistrelle, and observed flight paths, it is considered highly likely that a tree roost is located within the adjacent deciduous woodland. No emerging or re-entries of individual bats from/within the front of the dwelling were observed. The southern (rear) surveyor observed foraging and traversing common pipistrelle, noctule, soprano pipistrelle, and *Myotis*. No emerging or re-entries of individual bats were observed within/from the rear of the dwelling. For a more detailed account of the dusk survey, refer to Appendix I.



Figure 1: Position of the Surveyors for the Dusk, Indicated by Blue Triangles and Potential Areas for Roosting Bats, Indicated by Red Circles

5 Discussion

5.1. The preliminary roost assessment of the dwelling noted potential access points and crevice spaces within the roof space. The features of the dwelling noted one or more potential roosting space that were likely to host individuals but unlikely to support a roost of high conservation value (i.e. maternity roosting site) and was determined to be of low potential. Although there are good quality habitats around the site, the potential external crevice spaces had limited recesses combined with intact internal features. The potential crevice points were considered of lower potential for use as likely to have reduce areas for movement for individuals to obtain their required microclimatic needs.

5.2. The dusk echolocation survey was carried out in July 2021, in line with BCT survey guidelines. The survey conditions were suitable in line with the guidelines. The dusk survey noted a population of common pipistrelle, noctule, soprano pipistrelle, long-eared, and *Myotis*, with individuals recorded foraging and traversing on site and within the immediate landscape. The snapshot survey has found o emerging or re-entries of individual bats.

5.3. The dwelling is noted as having negligible potential for use as a hibernating roost given the majority of the external fabric of the building is exposed to the elements and is likely to be subject to sub-zero conditions in winter.

5.4. It is not considered that the identified features of the dwelling have potential roosting spaces which hosts a larger or significant roosting space, suitable for a maternity roost. This is due to the lack of observed signs (i.e. droppings, stains, marks) suggesting use during the external inspection, and bat activity noted during the dusk.

5.5. The further echolocation surveys have identified local populations of noctule, soprano pipistrelle, *Myotis*, and common pipistrelle bats to use the habitats directly on and adjacent to the site for traversing and foraging. The application site has been identified during the dusk survey to host **site** importance. To ensure that any new or additional lighting is not detrimental and cause avoidance of areas by local traversing and foraging bats including deterring light sensitive species, lighting proposals will need to ensure minimal light spill, and to retain boundary vegetation that clearly form transect grounds for the local bats. It is recommended that lighting on site is not directed up and outward but rather pointed down, direct, low lux, and if possible, and motion sensor.

5.6. No works are proposed to the boundary offsite trees, however in the event works are proposed, the ecologist must be contacted on how best to proceed, given the likely soprano roost identified during the dusk survey.

5.6. The further surveys have shown a likely absence of roosting bats within the dwelling. Works for the proposed new dwelling can proceed under standard precautionary measures in place.

6 Conclusion

- 6.1. The dusk survey has not identified evidence of an active bat roost within the dwelling at the time of the surveys. The survey has noted a population of common pipistrelle, soprano pipistrelle, Myotis, long-eared, and noctule that utilise the site and the adjacent habitats for foraging and traversing.
- 6.2. No further surveys are recommended, however standard precautionary measures are recommended for the works given the presence of crevice roosting bats noted during the dusk survey.
- 6.3. It is recommended that one Schwegler 2F bat box is placed within the rear boundary mature tree, facing southerly, and positioned at a height of 3-5 metres, away from lighting fixtures. The placement of bat box on site will be an overall enhancement for the local bat population and in line with NPPF, and Policy EN12 of The Reading Brough Local Plan (2019).
- 6.4. It is recommended that proposed lighting will need to be direct, hooded design, low level, low light spill, and low lux. It is not recommended that any new external lights are within close proximity or directed towards the new bat box, or towards boundary s41 deciduous woodland.
- 6.5. If at any time during the works a roosting bat be found, works must stop and the ecologist contacted on how best to proceed.
- 6.6. At the time of the survey no remnant or active nesting birds were noted within the dwelling. Given the dwelling is within close proximity to suitable mature trees and hedgerows, works are best carried outside of the active nesting bird season (generally accepted as March to August inclusive).

References

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Appendix I: Dusk Echolocation Survey Results

Front Surveyor

Time	Species	Behaviour	Observation
21:19	Noctule	Traversing	Heard not Seen
21:23	Common Pipistrelle	T	HNS
21:25	Soprano Pipistrelle	Faint Call	HNS
21:28	Visual only no call - likely pip	Possible Emergence from tree	Seen and Heard -Flight and timing suggests emergence from tree located behind me on bank flew to Creek House
21:29	SP	Likely E then T	Flight and timing suggests emergence from tree located behind me on bank heading towards rear garden
21:30	SP	Likely E then T	Flight and timing suggests emergence from tree located behind me on bank heading towards rear garden
21:31	SP	Likely E then T	Flight and timing suggests emergence from tree located behind me on bank heading along driveway towards main road
21:31	SP	Likely E then T	Flight and timing suggests emergence from tree located behind me on bank heading to rear garden
21:32-21:37	SP x7	T	Flight paths along tree line, to rear, and also back to tree line
21:38	SPx2	Foraging	Both together along tree line
21:39	CP	T	S/H along tree line
21:39	CP	T	s/h from rear of site to trees
21:39	SP	T	s/h from rear of site to trees
21:39	SP	F	s/h along front
21:41-22:30	SP	F and T intermittent	HNS and S/H various flight paths to and from trees, along bank trees, between house and adjacent houses
21:45-22:35	CP	F and T intermittent	HNS and S/H various flight paths to and from trees, along bank trees, between house and adjacent houses
21:41	Noctule	Foraging	HNS
21:55	Noctule	F	s/h high over site

22:04	Long-eared	T	HNS
22:05-22:11	Noctule	F	HNS
22:13-22:16	Noctule	F	HNS
22:18-end of survey	Noctule	F – intermittent	HNS

Rear Surveyor

Time	Species	Behaviour	Observation
21:19	CP	T	HNS (faint)
21:27	CP	T	HNS intermittent
21:30	CPX2	T	HNS
21:31 until 21:35	CP	F/T	S/H rear garden area
21:33	myotis	F/T	"
21:36	CPX2	"	"
21:38 to 22:01	SPX2	"	"
22:02	SP	T	towards driveway then back to garden area
22:03-22:05	SP	F	rear garden
22:07	SP	T	flew to drive
22:08	SP	T	flew to drive
22:09	SP	T	HNS
22:10	SPX2	F	rear garden area
22:11	NOC	F	HNS
22:14	NOC	f	HNS
22:15	SP	T	HNS
22:18	SP	T	HNS
22:26	SP	T	HNS (faint)
22:30	NOC	F	HNS
22:32	NOC	F	HNS

Appendix II: Recommended Boxes



Schwegler 2f – best hung within a suitable mature tree at a height of 3-5 metres, facing southerly.