Masjid Usman, Huddersfield

Bat Roost Suitability Assessment

02/02/2023

Masjid Usman

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Report duration	In accordance with CIEEM (2019), unless otherwise stated the findings of this report remain valid for a period of 18 months. After this period advice should be sought on the scope of any updating work required.

Summary Statement

Based on the features present, Masjid Usman, Huddersfield has been assessed as providing low bat roost suitability.

In line with best practice guidelines, a single nocturnal survey (dusk emergence or dawn re-entry) should be carried out to determine the ongoing status of roosting within the building.

Introduction

1. Brooks Ecological was commissioned by Masjid Usman to carry out a bat roost suitability assessment at Masjid Usman, Huddersfield, HD1 4AW (grid reference SE 1401 1668).
2. The application site, 'the Site', comprises the southern two-storey section of an active mosque.
3. Proposals are for the demolition of part of the property, with extensive renovations and restructuring carried out across the building.

Figure 1 The Site boundary (red line).

Method

4. A thorough daytime inspection of the Site was made in January 2023 to look for evidence of bats and assess suitability for roosting. Evidence of bats may take the form of droppings, feeding remains, live bats, dead bats, stains on masonry or timber from the oils in bats' fur, and claw marks made by bats regularly roosting in the same location.
5. Bat roosting potential of the building was classified according to the following criteria set out in Table 1, taken from the Bat Conservation Trust Good Practice Guidelines (2016).

Table 1 Bat Roosting Suitability of Buildings and Trees.

Suitability	Criteria
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions, and/or suitable surrounding habitat to be used on a regular basis or by a larger number of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A structure or tree with one or more potential roost sites that could be used due to their size, shelter, protection, conditions, and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitats.

Box 1 *Bat roosts*

Bats roost in buildings and trees in different locations depending upon time of year and environmental factors such as position of the sun, and proximity to heat sources and feeding grounds. The following types are commonly referred to:

Transitional roosts

Bats frequently gather early in the season (March to April) before dispersing to summer roosts. Bats can be found in high numbers in these roosts for a very short period. Transitional roosts can also be found shortly before hibernation in August to October when bats (depending upon species) can gather in roosts not used earlier in the season.

Maternity roosts

These are among the most important roosts and are normally occupied from May to August. Depending on the species involved, some maternity roosts can contain a very significant proportion of the local population.

Summer (non-breeding) roosts

Small groups of non-breeding female and male bats can gather in these roosts or bats from a local population may choose to roost individually. There are normally a large number of suitable locations for summer non-breeding roosts and these may be routinely used or used only on an occasional basis. Irregularly used summer roosts can be very hard to find without unreasonable survey effort.

Mating roosts

Around September bats will gather in roost to mate; these are often in different locations than summer or breeding roosts.

Hibernation roosts

As bats in hibernation roosts are highly vulnerable to disturbance and bats can be present in large numbers these are considered to be among the most important bat roosts. Many species of bats roost in large and nationally important hibernation roosts associated with underground sites, many of which are well known and protected. However, the most common bat in the UK (the common pipistrelle) is largely unaccounted for in winter but thought to disperse and roost individually or in small groups in thermally stable cracks and crevices in thick walls or trees.

Box 2 *Legal background*

Bats are afforded full protection under The Wildlife and Countryside Act (1981) plus amendments, and the Conservation of Habitats and Species Regulations 2010. Under these Acts it is an offence among others, to recklessly kill, injure or disturb bats. It is also an offence to destroy or obstruct a roost even if bats are not in occupancy at the time of the action.

There are no defences against contravention of the Habitats Regulations 2010 which means that it is important for detailed and well-designed bat surveys to be carried out, prior to carrying out activities that may impact upon bat roosts such as demolition of buildings or removal of trees.

Where bats are found within a potential development site, a license from Natural England may need to be secured if works that could otherwise contravene legislation are to be carried out. These licences are only issued where Natural England is satisfied that works are unavoidable and would not have a negative impact on the favourable conservation status of bats. A Natural England license requires that the potential development site has full planning permission and that bats were a material consideration of the planning permission.

Records

6. The local records provider, in this case West Yorkshire Bat Group (WYBG), was asked to provide all records from within a 2km radius of the Site.

7. 33 records have been returned for the search area, of which over 20 relate to roosts of pipistrelle species and unidentified vesper bat species. The most notable records relate to a vesper species roost of unspecified size, located c.150m north (2005), and a common pipistrelle maternity roost, located within residential development c.600m west (2001).

National, Regional and Local Status

8. The application Site lies within the natural range of 10 species of bat. These are summarised in the table below, together with a note on each species' national status, relative abundance, and status within the 1km search area.

Table 2 List of bat species known to occur in West Yorkshire, ordered in increasing level of significance to their national proportion.

Species	National Status	Within 2km radius	
		Recorded	Roosts known
Common pipistrelle *Pipistrellus pipistrellus*	Common and increasing	Yes	Yes
Soprano pipistrelle *P. pygmaeus*	Common and stable	Possibly	Possibly
Daubenton's bat *Myotis daubentonii*	Common and increasing	-	-
Brown long-eared bat *Plecotus auritus*	Common and stable	Yes	-
Natterer's bat *M. nattereri*	Common and increasing	-	-
Whiskered bat *M. mystacinus*	Uncommon but stable	Yes	-
Noctule *Nyctalus noctula*	Uncommon but stable	-	-
Brandt's bat *M. brandtii*	Uncommon but stable	-	-
Leisler's bat *Nyctalus leisleri*	Uncommon and trend unknown	Yes	-
Nathusius' pipistrelle *P. nathusii*	Uncommon but stable	Possibly	Possibly

EPSM Licences

9. Two granted EPSM (European Protected Species Mitigation) Licences have been returned for the 1km search area, both of which permit the destruction of common pipistrelle resting places, located c.900m and 1km southeast.

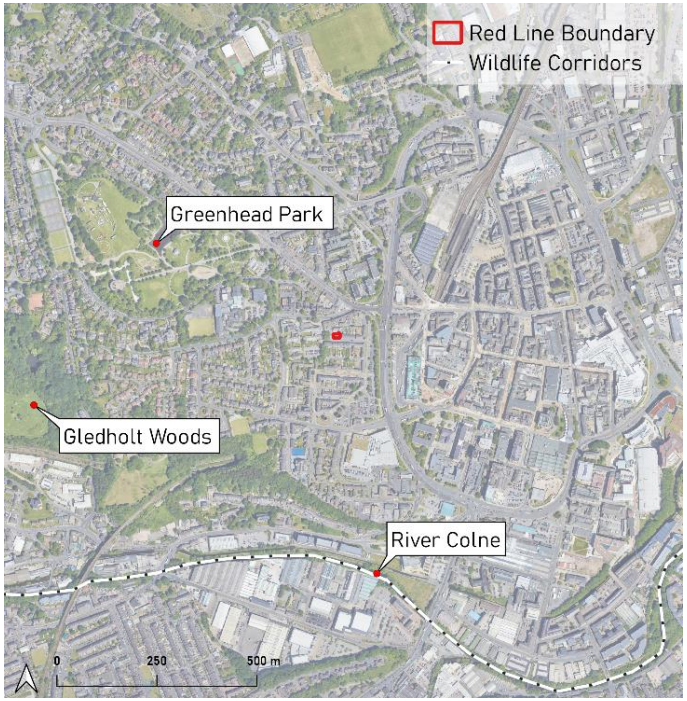
Site Context

10. The Site is located on the western edge of Huddersfield town centre, bound by dense residential and commercial development on all sides.

11. Greenhead Park and Gledholt Woods represent nearby better-structured bat foraging habitat. Both lack any connectivity with the Site, being located c.300m and c.600m west, respectively.

12. The River Colne constitutes the only major linear feature within the wider landscape, located c.500m south and separated from the Site by dense urban development.

Figure 2 Wildlife corridors in relation to the Site.



Survey Results

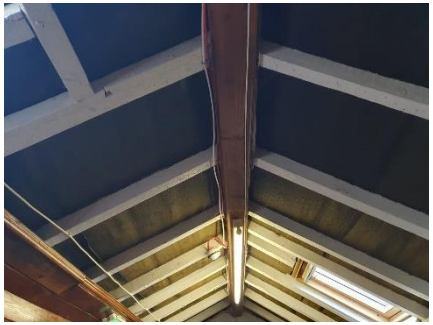
13. The Site consists of a two-storey end terrace property with a single storey lean-to extension to the west, located on Upper George Street.

Figure 3 Showing typical view of building – south (left) and north (right).


14. The property has a double-pitched concrete tile roof with exposed gable to the west. The roof is in generally good condition with no slipped or damaged tiles noted. The exposed verge is sealed with mortar. uPVC skylights rest flush with fixtures with no points of ingress.

15. Internal inspection found the attic space to be regularly used for storage. The roof is lined with bitumen which appears in good condition and well-sealed. No evidence of roosting was found across the attic.

Figure 4 Showing exterior (left) and interior (right) views of roof.

16. A stone chimney juts from the western elevation. Mortar is largely in fine condition, though a single exception is noted beneath the crown, presenting a gap suitable for roosting by a small number of crevice-dwelling bats. The lead flashing is well-sealed.

17. Plastic guttering is supported by masonry running beneath the eaves. A single gap is noted where masonry surrounding a stone support has shifted, offering a potential roost feature (PRF).

Figure 5 Showing chimney crown gap (left) and stone supports (right).


18. Across the northern elevation, sandstone walls are in good condition. To the south, fronting onto Upper George Street, several cracks are noted where mortar is missing. Some of the resultant gaps are considered suitable for roosting.

19. uPVC windows and doors all sit flush within surrounding sandstone masonry, with no PRFs noted.

Figure 6 Showing gaps in wall across northern elevation.


20. At the base of the western gable is a single-storey lean-to extension. Walls are rendered and sealed throughout. Plastic guttering rests adjacent to a wooden soffit. The soffit shows signs of extensive water damage, with rot evident. A single dry gap is noted at the northern corner, though the suitability of this feature to support roosting bats may be limited by the damp conditions present.

Figure 7 Showing view of extension (left) and gap to soffit (right).

Conclusion & Recommendations

21. Based on the features present, Majid Usman has been assessed as having <u>low</u> suitability for supporting roosts. The features are summarised below:

    - Gaps in masonry
    - Damaged/missing mortar
    - Gap to wooden soffit

22. In line with best practice guidelines (Bat Conservation Trust, 2016), further survey should be carried out to establish if potential roost features are being used by bats.

23. This should take the form of a single nocturnal survey (dusk emergence or dawn re-entry). Surveys should be undertaken during the active bat survey season, which runs from May to August inclusive, with September providing sub-optimal conditions.

Standard precaution

24. It must be noted that bats frequently move between roost sites, can be very casual in their choice of roosting location, and can turn up unexpectedly at any time.

25. On this basis the developer should always be mindful of bats as a potential constraint and have a protocol in place should any bats be seen or suspected during works: works should stop, a suitably licensed ecologist consulted, and their advice followed.

Enhancement

26. The NPPF puts emphasis on development delivering biodiversity enhancement above and beyond mitigating or compensating for any impacts. To this end, new development should seek to include integral bat roost features to offer suitable habitat in the long term.

References

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