Bat Roost Suitability Assessment & Report

Land at Chidswell, Dewsbury

Report reference: R-3280-05

April 2018

Report Title:	Bat Roost Suitability Assessment & Report Land at Chidswell, Dewsbury
Report Reference:	R-3280-05
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Summary Statement

Of the trees inspected, the majority have been assessed as being of negligible bat roost suitability and do not require any further survey.

Five individual trees and two woodland blocks have been assessed as containing features with moderate or high bat roost suitability and these will require further survey if they are to be directly impacted upon by development.

Five trees are identified as having Low roost suitability and any works to these specimens should be carried out with care and vigilance, following a Toolbox Talk.

Introduction

1. Subsequent to recommendations set out in the WYG, December 2016, Extended Phase 1 Habitat Survey Report (Ref. A054074), Brooks Ecological Ltd were commissioned to carry out a Bat Roost Suitability Assessment of trees at the Site in Chidswell.

2. The Site encompasses a large collection of agricultural fields interspersed with with scattered hedgerows, tree lined watercourses and areas of young plantation/ buffer woodland. Two mature broadleaved woodlands bound the Site to the east, these being Dum Wood and Dogloitch Wood.

Figure 1 Site boundary with approximate location of trees and woodland

3. Connectivity through the Site, and throughout the wider landscape, is poor with roads and built development regularly interrupting green linear features. The tree lined Hey Beck, which cuts through the northern half of the Site before continuing south-easterly, represents the best potential wildlife corridor, but is severed several hundred metres to the east by the M1.

Box 1 *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 Conservation of Habitats and Species 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.

Box 2 *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, 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.

Local Status

4. The application site is within the natural range of species of bats listed in Table 1.

Table 1 Bat species recorded within 100km of the application site.

Species	National status
Pipistrelles (*Pipistrellus pipistrellus* and *P. pygmaeus*)	widespread/common
Nathusius' Pipistrelle (*Pipistrellus nathusii*)	widespread/rare
Noctule (*Nyctalus noctula*)	widespread/frequent
Leisler's (*Nyctalus leisleri*)	widespread/rare
Brown long-eared (*Plecotus auritus*)	widespread/common
Natterer's (*Myotis nattereri*)	widespread/frequent
Daubenton's (*Myotis daubentonii*)	widespread/common
Whiskered/Brandt's (*Myotis mystacinus* and *M. brandtii*)	widespread/scarce
Alcathoe's (*Myotis alcathoe*)	local/unknown
Serotine (*Eptesicus serotinus*)	south restricted/uncommon

Method

5. A thorough daytime inspection of the site was made in March 2018 in order 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 from the oils in bats' fur and claw marks made by bats regularly roosting in the same location.

6. Bat roosting potential of the trees was classified according to the following criteria set out in Table 2, taken from the Bat Conservation Trust Good Practice Guidelines (2016).

Table 2 Bat Roosting Suitability of trees.

Suitability	Criteria
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	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 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 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, protections, conditions and surrounding habitats.

7. Survey and assessment was directed by Christopher Shaw BSc (Hons) MCIEEM. Chris has over 7 years' experience of carrying out bat surveys in a professional capacity and is registered to use the new Class Survey Licence WML CL18 (Bat Survey Level 2). He is an active member of the West Yorkshire Bat Group and West Yorkshire Bat Care Scheme.

Records

8. As part of the original WYG Extended Phase 1 Habitat Survey Report, data was requested from West Yorkshire Ecology (WYE). A total of 33 bat records were returned, with species including common pipistrelle, noctule and indeterminate bat species.

9. Fifteen of the records relate to roosts, two of which are hibernacula, one has been excluded and six are transitional roosts. The closest roost record is for a pipistrelle sp. (Pipistrellus sp.) roost located approximately 650m north of the site.

Survey Results

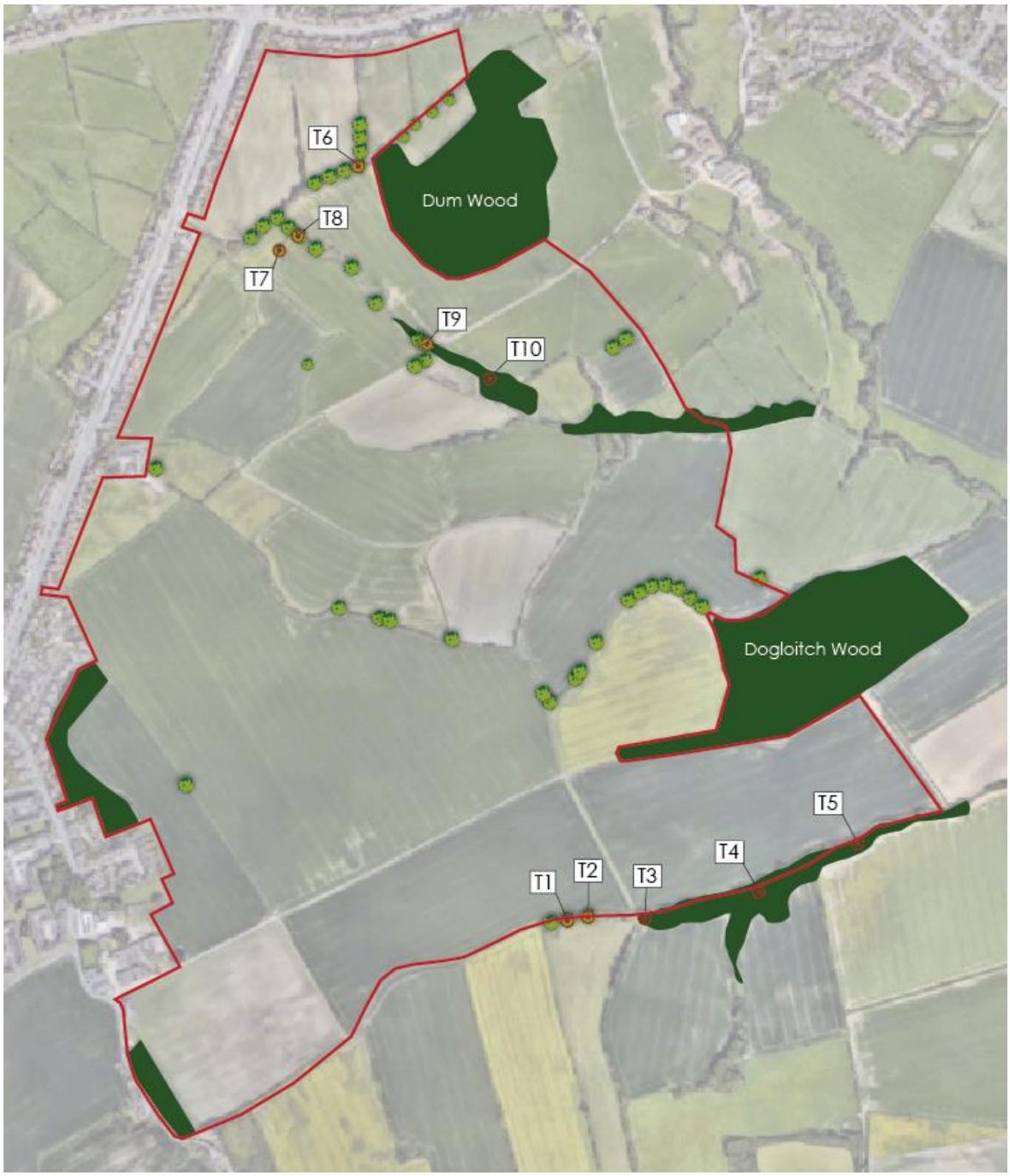
10. During the course of the survey, a total of 10 individual trees were assessed as containing features with bat roost suitability. In addition, numerous trees were identified within, and along the edges of, the two mature broadleaved woodlands bordering the eastern boundary (Dum Wood & Dogloitch Wood).

11. The approximate location of these trees is shown on Figure 2 overleaf, whilst a brief description of the potential roost features (PRF's) noted and the level of roost suitably assigned, can be seen in Table 1 below. Images of the PRF's can be seen in Appendix 1.

Table 1 Summary of Bat Roost Suitability Assessment

Ref.	Roost Suitability	Notes
T1	Low	Early mature oak with occluded bark
T2	Low	Early mature alder with peeling bark & rot holes
T3	High	Mature oak with large cavity in trunk
T4	Moderate	Mature oak with woodpecker hole
T5	Moderate	Two mature ash trees with
T6	Moderate	Mature oak with woodpecker hole at around 4m
T7	Low	Early mature oak with shallow knot holes
T8	Low	Two mature ash trees with branch wounds
T9	Low	Mature ash covered in mature ivy
T10	Moderate	Mature willow with woodpecker holes and hazard beams
Dum Wood	High	Numerous trees with a range of potential roost features
Dogloitch Wood	High	Numerous trees with a range of potential roost features

Figure 2 Location of with roost suitability



Evaluation

12. Detailed proposals have yet to be produced, and as such, it is unclear which trees will be retained, and which will require removal or major tree works to facilitate development.

13. Where trees are classified as having roost suitability (see figure 2) the first recourse should be to the avoidance of impacts, and plans should be revisited to establish the imperative of any works to these trees. Where works are essential, further survey should be carried out prior to works.

14. Works to trees classified as having *Low Roost Suitability* should be the subject of a toolbox talk delivered to tree contractors prior to works commencing, to make them aware of the potential for roosting bats and the type of features they may use. They should be instructed to inspect features immediately prior to felling, and if signs of bats or more complex features are found, the fell should be halted and further ecological advice should be sought.

15. Where trees are classified as having either *Moderate or High Roost Suitability* - further action is recommended. At least two surveys should be carried out on trees with moderate suitability and at least three on trees with high suitability. Each survey visit should be undertaken during the main active bat season (May to August) and during fine weather conditions.

References

Bat Conservation Trust (2016) Bat Surveys for Professional Ecologists – Good Practice Guidelines

English Nature (2004) Bat Mitigation Guidelines. English Nature, Peterborough.

JNCC (2004) The Bat Workers Manual. 3rd Edition.

Conservation of Habitats and Species Regulations 2010

Appendix 1 Potential Roost Features

T1 – crossing branches with occluded bark

T2 – tree in decline, with rot holes and peeling bark

T3 – Large main stem cavity

T4 – old woodpecker hole

T5 – Typical features on mature ash trees

T6 - old woodpecker hole

T7 - Early mature oak with shallow knot holes

T10 – Poplar with woodpecker holes

T10 – Poplar with hazard beam

Woodland tree with BRS

Woodland tree with BRS

Woodland tree with BRS