AEWC Ltd

Animal Ecology & Wildlife Consultants

Bat Ground Level Tree Assessment Report

Land adjoining to Hawthorns

Maidstone Road
Borden
Kent
ME9 7QA

Natalie Arscott

24-027
October 2024

AEWC Ltd Birch Walk, Lower Street, Fittleworth, West Sussex, RH20 1JE
Tel:08452 505585, info@aewc.co.uk , www.aewc.co.uk

Registered in England and Wales No. 06527840

Contents

Author	Natalie Arscott
Authorised by	Annika Binet
Report and version number	24-027-GLTA-v1
Survey Date	26/06/2024

Summary

- AEWC Ltd were commissioned by Wyndham Property Group to undertake a Ground Level Tree Assessment (GLTA) with endoscope inspection at Land adjoining to Hawthorns, Maidstone Road, Borden, Kent, ME9 7QA at grid reference TQ 85987 62692 to help inform the proposed removal of trees.
- This report details the results of the survey, which was carried out on the 26th June 2024 by Brigitte de Coriolis and Natalie Arscott, both Natural England licensed bat ecologists.
- A total of 19 trees are proposed for removal. These were assessed from the ground and, where necessary, using a ladder, torch, and/or endoscope to closely inspect features.
- Trees T9, T11, T12, T13, T19, T20, and T21 were assessed to have PRF-I roost suitability. This was due to either the tree size and presence of ivy, presence of decay pockets or rot holes which are currently unsuitable for roosting but could create a potential roosting feature in the future with further deterioration, or the presence of crevice or cavity spaces which may support individual bats but are highly unlikely to support a maternity roost. No bats or evidence of use by bats was found in any of the trees.
- The remaining 12 trees proposed for removal were assessed to have negligible roost suitability due to a complete absence of potential roosting features or features that could create roosting opportunities in the near future
- **No further surveys are required. However, a lack of any mitigation could result in a negative impact on bats if present, through potential death, disturbance or loss of roost space, a mitigation plan is therefore required for works to proceed for the seven trees identified as having PRF-I roost suitability, as detailed within Section 6 of this report**.
- **In addition, appropriate compensation for all PRF-Is must be created in advance of impacts**. **This should be delivered through the installation of at least five bat boxes on retained trees at the site boundaries.**

1 Introduction

1.1 AEWC Ltd were commissioned by Wyndham Property Group to undertake a Ground Level Tree Assessment (GLTA) with endoscope inspection at Land adjoining to Hawthorns, Maidstone Road, Borden, Kent, ME9 7QA to help inform the proposed removal of trees.

1.2 The bat survey and report writing were carried out in accordance with Bat Surveys: Good Practice Guidelines (Bat Conservation Trust, 2023).

1.3 A Preliminary Ecological Appraisal was carried out at the site in May 2024. The on-site trees were not individually assessed as part of this survey, however it was noted that trees with rot holes and cavities were present.

1.4 GLTA with endoscope inspection was therefore required to ascertain whether the trees proposed for removal hold potential for roosting and represent a constraint to the proposed felling.

1.5 This report details the results of the GLTA and outlines recommendations in relation to bats and the proposed development of the site.

Aims and objectives

1.6 The objectives of the survey were to:

- Identify the potential of the trees proposed for removal on the site to support roosting bats;
- Estimate the size and status of any existing bat roost within the trees;
- Determine the potential impacts on any bat roost from the proposed works; and
- Provide information for use in the design and development of ecological mitigation and enhancement measures where appropriate.

Site Location

1.7 The trees are located at Land adjoining to Hawthorns, Maidstone Road, Borden, Kent, ME9 7QA at central grid reference TQ 85987 62692. The site is located in a semi-rural area to the south of Maidstone Road, 110m to the southeast of the A249 and 450m to the north of the M2. The surrounding landscape predominantly comprises a combination of residential properties, agricultural land, a network of major roads, and a golf course. See Figure 1.

1.8 The site comprises a narrow belt of woodland along the northwest, southwest, and southeast boundaries, and a small number of scattered trees within the central site area. A total of 19 trees are proposed for removal to facilitate the development, including all the scattered trees within the site and a section of the woodland belt. These are trees T2-T13 and T17-T23 as per the Arboricultural survey by David Archer Associates. See Figure 2.

FIGURE 1: SHOWING THE LOCATION OF THE SITE

FIGURE 2: SHOWING THE TREES SUBJECT TO SURVEY

Legislation

1.9 All species of bats are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)* which affords them protection under *Section 9*, as amended. They are also protected under the *Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*. In combination, this makes it an offence to:

- intentionally kill, injure or take (capture etc.);
- possess;
- intentionally or recklessly damage, destroy, obstruct access to any structure or place used by a scheduled animal for shelter or protection, or disturb any animal occupying such a structure or place; and
- sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

1.10 A roost is defined as 'any structure or place which a bat uses for shelter or protection'. As bats tend to reuse the same roosts, legal opinion is that a roost is protected whether or not bats are present.

1.11 Any disturbance of a bat occupying a roost can lead to prosecution. Disturbance can be caused by noise, vibration and artificial lighting. Penalties for breaking the law can include fines of £5,000 per bat, imprisonment and the seizure of equipment.

1.12 Furthermore, seven bat species (barbastelle, Bechstein's, noctule, soprano pipistrelle, brown long-eared, lesser horseshoe and greater horseshoe) are also Species of Principal Importance in England under *Section 41* of the *Natural Environment and Rural Communities Act 2006*.

Proposals

1.13 The development proposal is for the construction of three new dwellings on the site. Tree removal is required to facilitate construction of the dwellings and an access road.

2 Methods

Daytime Assessment

2.1 A detailed bat ground level tree assessment with endoscope inspection was undertaken on the 26th June 2024 by Brigitte de Coriolis and Natalie Arscott, both Natural England licensed bat ecologists.

2.2 The survey comprised an external inspection of the trees present within the survey area to look for the presence of Potential Roosting Features (PRF) including woodpecker and rot holes, horizontal cracks and splits in stems and branches, partially detached platey bark, cankers, hollows and cavities, double-leaders forming compression forks with included cavities, gaps between overlapping branches, partially detached ivy with stem diameter exceeding 50mm and bat, bird or dormouse boxes.

2.3 Where features were identified that could be accessed using a ladder, these were closely inspected using a torch and endoscope, to inspect for bats or signs of useby bats and determine the quality of the feature.

2.4 Taking account of these habitat features and signs of presence, the trees were then assigned a level of roost suitability based the criteria given in the Bat Conservation Trust's Bat Surveys: Good Practice Guidelines (Collins, 2023) and professional judgement. The primary objective of this exercise was to identify the need for further detailed bat survey later in the year, or alternatively to obtain sufficient information that would dismiss the need for further assessment.

2.5 Potential roost features are classified as PRF-I or PRF-M. PRF-I are only considered to be suitable for individual or low numbers of bats, either due to size or lack of suitability. PRF-M are suitable for multiple bats and may therefore be used by a maternity colony.

3 Constraints/Limitations

3.1 Bats are difficult to locate in trees, with only around 75% of potential roosting areas visible from ground level. It should be noted that it is not always possible to identify bat presence by examining features internally as droppings and other evidence can deteriorate rapidly within tree cavities and poor weather conditions may have washed away droppings which were deposited on exposed surfaces.

3.2 Bats can have seasonal use of trees and being so mobile may arrive and start using a site after it has been surveyed, or roost somewhere else during the period it was surveyed. For this reason, bats may potentially be present but remain undetected, particularly during daytime assessment.

4 Results

Daytime Assessment

4.1 Trees T9, T11, T12, T13, T19, T20, and T21 were assessed to have PRF-I roost suitability. This was due to either the tree size and presence of ivy, presence of decay pockets or rot holes which are currently unsuitable for roosting but could create a potential roosting feature in the future with further deterioration, or the presence of crevice or cavity spaces which may support individual bats but are highly unlikely to support a maternity roost. No bats or evidence of use by bats was found in any of the trees.

4.2 The remaining 12 trees proposed for removal were assessed to have negligible roost suitability due to a complete absence of potential roosting features or features that could create roosting opportunities in the near future.

4.3 Full results of the assessment are detailed in Table 1 and photographs are provided below.

Table 1: Ground level tree assessment findings

Tree Number	Species & Life Stage	Roost Suitability	Assessment
T2	Field maple mature	Negligible	Two potential holes were identified from the ground, however closer inspection of these from a ladder revealed them to be shallow hollows which did not lead to suitable cavities or crevices. No other potential roosting features identified.
T3	Ash, mature	Negligible	Slender stems in good condition, no potential roosting features present.
T4	Ash, over-mature	Negligible	Multi-stem, stems are slender, ivy-smothering but ivy is not thick enough to conceal stems or provide a roosting feature in itself. No potential roosting features present.
T5	Ash, mature	Negligible	Multi-stem, stems are slender, ivy-smothering but ivy is not thick enough to conceal stems or provide a roosting feature in itself. No potential roosting features present.
T6	Ash, semi-mature	Negligible	Very small tree, no potential roosting features present.
T7	Field maple, mature	Negligible	Very small tree, no potential roosting features present.
T8	Field maple, mature	Negligible	Very small tree, no potential roosting features present.
T9	Ash, mature	PRF-I	Large tree with ivy smothering. Stem is in good condition with no potential roosting features seen, however due to the size of the tree and presence of ivy, there is potential for minor concealed features to be present.
T10	Ash, mature	Negligible	Tall tree but with a slender trunk in good condition. No potential roosting features present.
T11	Ash, mature	PRF-I	Large decay pocket present from historically failed limb. Closely inspected from a ladder and found to be filled with hard wood with only slight decay starting at the edges. Currently no suitable crevice or cavity, a suitable roosting feature could form in the future with further decay. No other potential roosting features present.
T12	Field maple, mature	PRF-I	Large tree with ivy smothering. There is some flaking bark on a damaged branch over the road, however the crevice created is not deep enough for roosting. No potential roosting features seen, however due to

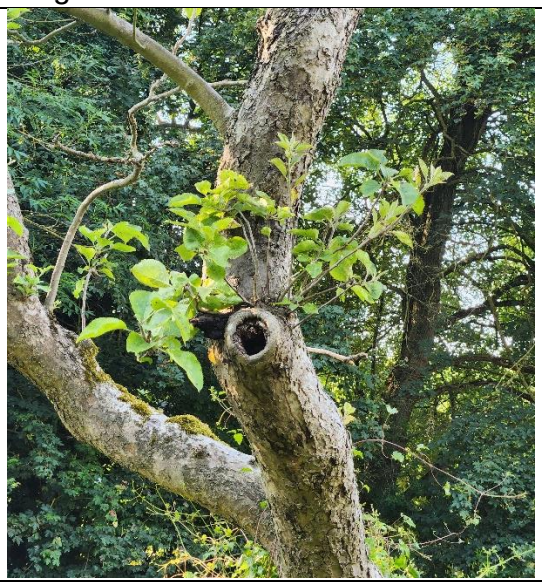
			the size of the tree and presence of ivy, there is potential for minor concealed features to be present.
T13	Ash, mature	PRF-I	Large decay pocket forming on lower stem from historical rip out wound. Inspected with endoscope and found to be insufficient decay for a suitable crevice to be created yet. A suitable roosting feature could form in the future with further decay. One wound was found low on the tree, this created a small crevice potentially suitable for individual bats, however the wound was filled with fungus and cobwebbed, with no signs of use for roosting.
T17	Apple, over-mature	Negligible	One large decay pocket low on the tree, this appeared to be shallow and had been stuffed with tarpaulin which appeared to have been present for some time. As such there was no suitable roosting space. No other potential roosting features were present.
T18	Hazel, mature	Negligible	Multi-stemmed from base with a high number of very slender stems. No potential roosting features present.
T19	Apple, mature	PRF-I	Small tree with several rot holes. On inspection the rot holes were very shallow (<3 inches deep) and did not provide a suitable roosting space, they were also very damp. There is potential for rot holes to develop into potential roosting features in the future with further decay.
T20	Apple, mature	PRF-I	Small tree with several rot holes. On inspection the rot holes were very shallow (<3 inches deep) and did not provide a suitable roosting space, they were also very damp. There is potential for rot holes to develop into potential roosting features in the future with further decay. A dead branch within the crown provides a small cavity space, however the hole is upward facing so would be subject to considerable water ingress making it highly unappealing for roosting. Inspection revealed considerable cobwebbing and no signs of use by bats.
T21	Apple, over-mature	PRF-I	Small tree with a largely hollow trunk and several holes leading into large cavity spaces. All holes were inspected using an endoscope and no signs of use by bats was identified. Due to the tree's state of deterioration and decay, there is significant water ingress within the cavity spaces. The spaces were found to be extremely damp and full of woodlice. Whilst there is a sufficient space within the cavities for a higher number of bats, these cavities are considered to be highly unlikely to support a maternity roost due to the level of water ingress/

			damp. The cavities are also large due to the trunk being predominantly hollow with several entrance holes, which could result in poor temperature regulation within the roost and a lack of tighter spaces for bats to tuck into as is typically preferred for roosting. As such, it is considered that the tree meets 'PRF-I' roost suitability.
T22	Walnut, mature	Negligible	Small tree with a slender stem in good condition, no potential roosting features present.
T23	Myrobalan plum, mature	Negligible	Small tree with slender stems in good condition, no potential roosting features present.

Photograph 1: Trees proposed for removal on the site boundary.

Photograph 2: Tree T21 with several holes leading into the hollow trunk.

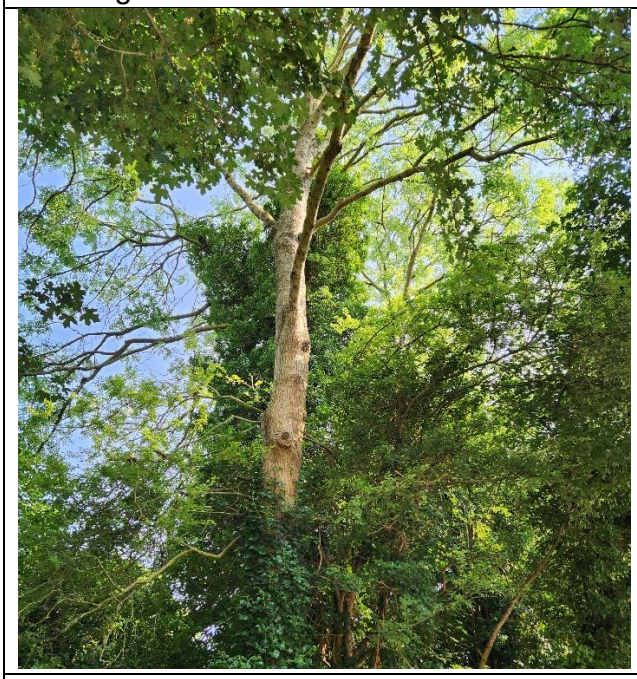
Photograph 3: Endoscope image showing accumulations of woodlice in T21.



Photograph 4: Rot hole on T20, found to be too shallow for bat roosting at present.

Photograph 5: Flaking bark on T12, found not to create a suitable crevice for bat roosting.

Photograph 6: T19 with shallow rot holes.



Photograph 7: T10 with negligible roost suitability.

Photograph 8: T18 with negligible roost suitability.

5 Evaluation, Conclusions & Recommendations

5.1 Seven of the trees proposed for removal were considered to have PRF-I roost suitability. For trees T9 and T12, no features potentially suitable for roosting were identified, however the trees were large and ivy-smothered and therefore it cannot be completely ruled out that minor, concealed features could be present. Trees T11, T13, T19 and T20 had decay wounds or rot holes which were not currently suitable roosting features, however it is considered that with further deterioration roosting features could potentially develop on these trees. Trees T13, T20 and T21 have crevice or cavity features that could potentially be used by roosting bats. However, no evidence

of previous use by bats was identified and all features were considered to be of highly sub-optimal suitability due to water ingress, size, and/or fungal growth.

5.2 **No further surveys are required. However, a lack of any mitigation could result in a negative impact on bats if present, through potential death, disturbance or loss of roost space, a mitigation plan is therefore required for works to proceed for the seven trees identified as having PRF-I roost suitability, as detailed within Section 6 of this report**.

5.3 **In addition, appropriate compensation for all PRF-Is must be created in advance of impacts**. **This should be delivered through the installation of at least five bat boxes on retained trees at the site boundaries.**

5.4 Twelve of the trees were considered to have negligible potential to support roosting bats and, as such, there are no known constraints regarding these species and the proposed removal of these trees.

5.5 Lighting can have notable negative impacts on commuting bats, that are known to be present locally. There is potential for lighting during and post-development to cause indirect disturbance in these areas. Direct lighting of trees must be avoided or kept to the minimum necessary, indirect lighting should be fitted with motion detection to reduce lighting time.

5.6 Additional work lighting which may be required must be positioned to ensure that it shines onto the area of works with minimal spread into the wider area.

5.7 Tree removal must be undertaken outside the breeding bird period from March to August. Should any vegetation clearance be scheduled to take place between the beginning of March and the end of August, this must be immediately preceded by a survey to check for nesting birds. No trees can be cleared whilst a nest is occupied, regardless of species.

6 Mitigation

Stage 1

6.1 Prior to works commencing, trees T9, T11, T12, T13, T19, T20, and T21 must be fully inspected by a licensed bat ecologist to check for roosting features, signs of use and/or the presence of bats. Trees T13, T20, and T21 must be inspected using an endoscope immediately prior to felling due to the presence of crevice and cavity features.

Stage 2

6.2 When works commence, a licensed bat worker will provide a toolbox talk for all workers on site, detailing the mitigation to be followed during this stage of the works and the procedure to follow in the unlikely event a bat is found during works (detailed below).

6.3 If in the unlikely event a bat is found present works must stop and be assessed by a licence natural England bat worker and a Natural England licence may be required for works to continue.

6.4 All areas with potential for bats will be soft-felled under direct supervision of the licensed ecologist, able to handle and check any bats found and move them to a safe place.

6.5 Felling must only be conducted when the air temperature is sufficiently high (at least 8°C) and in the absence of strong wind and rain, so as to not risk harming bats which may be found.

6.6 Once all areas with suitability for bats have been soft-felled, the remaining works can be undertaken without an ecologist present.

6.7 New roost features will be created on site through the installation of bat boxes onto retained trees on site, to provide compensation or additional sites for bats to roost. At least five bat boxes should be installed, and this must be done prior to the removal of existing trees.

7 Procedure to follow in the event a bat is found on site at unsupervised times.

7.1 Bats are present within the vicinity of the site and may be found at any location. Bats are protected species, and these procedures must be followed to avoid committing an offence.

7.2 If a bat is found at any location around the site DO NOT TOUCH unless necessary for the safety of the bat.

7.3 If the bat was uncovered in a roosting location carefully replace covering ensuring the bat is not crushed or harmed. If this is not possible cover the animal with a loose covering.

7.4 Stop all work at that area and the immediate vicinity. Work may continue at other areas around the site.

7.5 Call the AEWC Ltd bat licensed project ecologist Brigitte De Coriolis 07545130203, call the office on 08452 505585, or licensed ecologists Annika Binet 07528 956486 or Daniel Whitby 07764813002.

8 References

Bat Conservation Trust (2018) *Guidance Note 8 Bats and Artificial Lighting*. BCT, London

CIEEM (2013) *Competencies for Species Survey guidance documents*. Chartered Institute of Ecology and Environmental Management, Winchester

CIEEM (2017) *Guidelines on Ecological Report Writing*. Chartered Institute of Ecology and Environmental Management, Winchester

CIEEM (2021) *Good Practice Guidance for Habitats and Species*. Chartered Institute of Ecology and Environmental Management, Winchester

CIEEM (2022) *Code of Professional Conduct*. Chartered Institute of Ecology and Environmental Management, Winchester

Collins J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th ed). The Bat Conservation Trust, London

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

JNCC (2004) *Bat workers manual (3rd edition)*. JNCC, Peterborough.

Mitchell-Jones A.J. (2004) *Bat mitigation guidelines*. English Nature, Peterborough

Surrey Bat Group (2009) *Criteria for Bat Surveys in the Planning Process.* www.surreybats.org.uk/criteria.html.