



Preliminary Ecological Appraisal / Ground Level Tree Assessment (Bats) - 2no trees at Greensykes Farm, Lamplugh, Cumbria, CA14 4SA

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This report outlines the findings of a Preliminary Ecological Appraisal / Ground Level Tree Assessment of 2no. trees at Greensykes Farm, Lamplugh, Cumbria, CA14 4SA (Nat Grid Ref. NY 07463 20635 & NY 07439 20632 - See Figure 1).

It is understood that a proposal exists to extend an agricultural building in to the adjacent 'modified grassland' pasture and that removal of the trees is necessary so as to accommodate this extension. The loss of both trees has been factored in to an appropriate Biodiversity Net Gain calculation and compensatory planting has been proposed which will ensure a +10% (minimum) gain (pers. Comms. Sandy Brown).

The proposed felling of the trees could present a risk that bats may be harmed and bat roosts destroyed. All bat species and their roosts are protected in the UK under The Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017.

For this reason Hesketh Ecology were commissioned in September 2026 to complete a Preliminary Ecological Appraisal / Ground Level Tree Assessment of the tree. It is understood that this survey and report will be used to inform proposals for the tree, and accompany the full planning application for the new agricultural building.

Survey Objective and Timing

The site inspection was conducted on the 28th September 2026, adhering to good practice guidance ('Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition)*' - The Bat Conservation Trust. London. ISBN-978-1-7395126-0-6).

Any evidence of bats is recorded as encountered but the primary objective of this PEA / GLTA was to identify the level of bat roost potential so as to inform recommendations for any further survey effort and / or appropriate mitigation.

Site & Surrounding Habitat

Greensykes Farm is located in a rural area, within Landscape Character Type 5: Lowland, Sub Type 5a: Ridge & Valley as defined in the 'Cumbria Landscape

Our Ref. No.: MLA26BAT032
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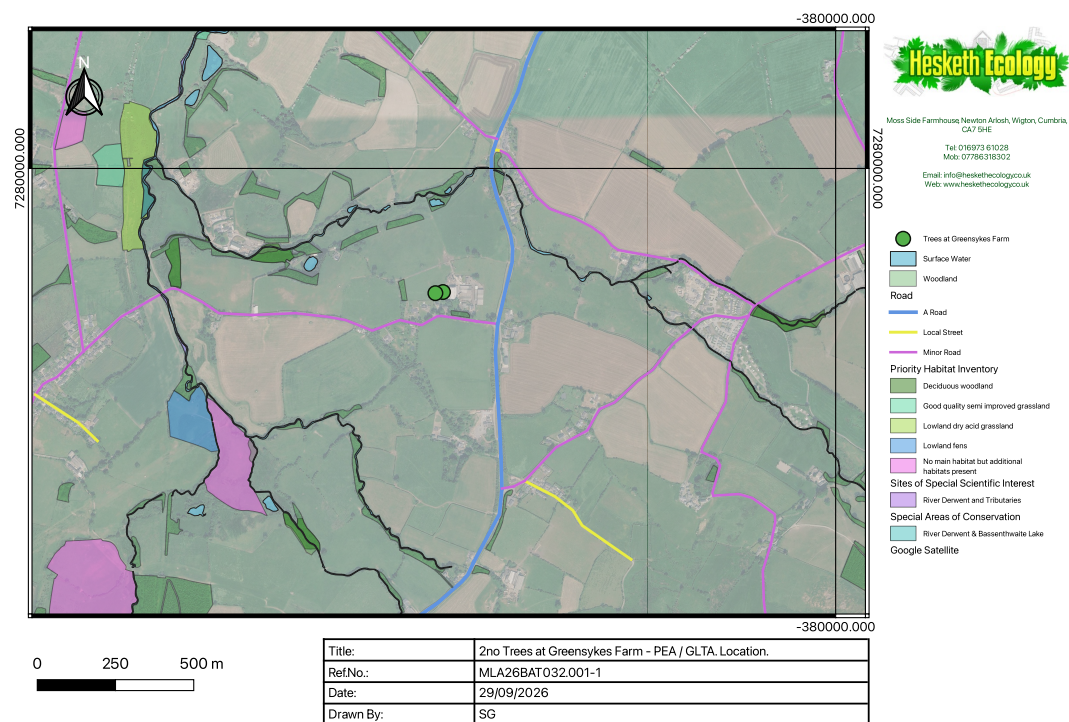


Figure 1: - 2no. Trees at Greensykes Farm, Lamplugh, Cumbria, CA14 4SA (Sycamore = Nat Grid Ref. NY 07463 20635 & Horse chestnut = NY 07439 20632; Location Plan 1:20000 (Top) and Site Plan 1:1000 (Bottom).

'Ridge & Valley' is characterised as;

- A series of ridges and valleys that rises gently toward the limestone fringes of the Lakeland Fells
- Well managed regular shaped medium to large pasture fields
- Hedge bound pasture fields dominate, interspersed with native woodland, tree clumps and plantations.
- Scattered farms and linear villages found along ridges
- Large scale structures generally scarce

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The ecological interest of this landscape type is presented as follows;

'Much of the ecological interest of this agriculturally improved landscape lies in species-rich hedgerows and hedge banks, particularly where they are allowed to grow tall. Most woods are plantations, both of native broadleaves and of conifers, but native oak woodland is found along the more deeply incised river and stream valleys. Plantations are often found on Ancient Woodland sites. The larger conifer plantations are important for red squirrels. Less common habitats include species-rich rush pasture and purple moor-grass wet grasslands and, in a few rare cases, hay meadows. Small patches of species-rich pasture are occasionally present along steep banks. West of Carlisle several small remnant lowland raised bogs are present, now largely covered by woodland. Several important river systems flow through these valleys, including the River Ellen and tributaries of the River Derwent, which are important for Atlantic salmon, otter and freshwater pearl-mussel.'

Cumbria Landscape Character Guidance
Pg. 71-72.

The Living England Habitat Map (a satellite-derived national map created by Natural England showing the location and spread of 16 broad habitat types across England, using machine learning, field surveys, and earth observation data), indicates that the area is dominated by improved grassland, but small areas of other habitats including fen, marsh and swamp and deciduous woodland do exist, albeit sparsely distributed and fragmented within an improved grassland landscape. Whilst woodland is not abundant, areas identified on the Living England Map as 'built up areas and gardens' also contain large mature trees.

Further to the implied habitats - identified areas of Priority Habitat do exist in the area. Deciduous woodland, lowland fen and good quality semi-improved

grassland is mapped as Priority Habitat primarily along the course of the River Marron which lies c.0.9km to the west at its closest point. The River Marron is also designated as the River Derwent and Tributaries Site of Special Scientific Interest (SSSI) and River Derwent and Bassenthwaite Lake Special Area of Conservation (SAC).

The two trees considered here are located within an open agricultural field consisting of improved rye grass pasture. Private residential gardens adjoin the southern field boundary which lies approximately 25m to the south. A low garden hedgerow exists on this field boundary and the gardens beyond do contain a number of large mature trees. A shelter belt of trees also forms the western boundary of the field c.0.1km to the west. The northern field boundary is formed of stock fencing only. To the east the field abuts the farm yard, with a large modern agricultural building lying 7m to the east of the sycamore tree.

The surrounding habitat offers some suitable foraging habitat - primarily within gardens to the south and this poorly connected to larger areas of suitable foraging habitat in the wider area. The trees themselves are rather isolated and do not exist within a hedgerow, woodland edge nor any other distinct linear habitat feature. It is concluded that the site offers 'low' suitability potential flight-paths and foraging habitat.

Suitability	Potential flight-paths and foraging habitat
None	No habitat features on site likely to be used by any commuting or foraging bats at any time of year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available for foraging bats).
Negligible	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	Habitat that could be used by small numbers of commuting bats such as gaps hedgerows or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.

Suitability	Potential flight-paths and foraging habitat
High	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree lined watercourses and grazed parkland. Site is close to and connected to known roosts.

Table 1: Adapted from 'Table 4.1; Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement', Chapter 4, Pg. 44 - 'Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)'.

Desktop Search

A review of the 'Cumbria Mammal Atlas', Cumbria Biodiversity Data Centre and Cumbria Mammal Group (November 2017), shows that 29 mammal species have been previously recorded in hectad NY02 (pre- and post- 2000), including the following bat species;

Hectad NY02 (Total No. of all terrestrial mammal sp. = 29)		
Species	Pre- 2000	Post- 2000
Whiskered bat (<i>Myotis mystacinus</i>)		
Brandt's bat (<i>Myotis brandtii</i>)		
Natterer's bat (<i>Myotis nattereri</i>)		
Daubenton' bat (<i>Myotis daubentonii</i>)		
Noctule bat (<i>Nyctalus noctula</i>)		
Pipistrelle species (<i>Pipistrellus</i> spp)		
Brown Long-eared bat (<i>Plecotus auritus</i>)		
Western Barbastelle (<i>Barbastella barbastellus</i>)		
Leisler's bat (<i>Nyctalus leisleri</i>)		

Table 2: Bat species records for hectad NY02, pre- and post- 2000. Green = record of presence exists; red = no records exist. Taken from 'Cumbria Mammal Atlas', Cumbria Biodiversity Data Centre and Cumbria Mammal Group (November 2017).

A search was conducted using the MAGIC website (<https://magic.defra.gov.uk>) for records of Statutory Designated Sites (SACs or SSSIs) for which bat species are listed as a qualifying feature or notified interest feature and for Granted European Protected Species Mitigation Licenses (EPSML) on 29/09/2026 using central Grid Ref. NY 07463 20635. This did not reveal any relevant statutory designated sites within 10km of the Site nor did it identify any Granted European Protected Species Mitigation Licences (Bats) within 2km of the Site.

A search of historic planning applications for the area was attempted on the Copeland section of the Cumberland Council planning application search facility (<https://www.cumberland.gov.uk/planning/application-search>) on 29/09/2026. The Copeland area of the Cumberland Council planning application search tool does not allow searches by site name / address, nor by post code area. A search conducted for the 'Lamplugh' parish (highest spatial resolution available) returns 58 historic planning applications - these are listed under 'Application Reference' numbers making it extremely difficult to identify any previous planning application for the site itself or the wider post code area. The 58 historic planning applications identified for the Lamplugh Parish were not reviewed in detail and no historic bat survey data for the site itself nor other properties within the immediate area were identified via this route.

This desk based investigation has confirmed that at least 4 species of bat have been previously recorded in the surrounding area but no Protected Species Mitigation Licences have been previously issued within 2km of the site.

Field Survey Methodology

Preliminary Ecological Appraisal (PEA)

The tree was identified and an assessment of its suitability for bats was completed - using professional judgement - and considering the surrounding commuting and foraging habitat, the presence of known roosts in the surrounding area and the presence of Potential Roost Features (PRF) in the tree.

Ground Level Tree Assessment (GLTA)

A detailed inspection of the tree was conducted from the ground so as to compile information about the tree, Potential Roost Features (PRFs) and any evidence of bats. The inspection was conducted during daylight and in good light conditions. The inspection was conducted with reference to Table 6.6 of 'Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition)*' and 'Bat Roosts in Trees BTHK (2018 and 2020)'.

Personnel

The survey and assessment were undertaken by Sam Griffin.

Sam Griffin (BSc, ACIEEM, NE Bat Licence CL 18 Survey Level 2; No. 2022-10877-CL18-BAT) is an experienced and competent ecologist, with over 22 years experience of study, training and work in the field of wildlife conservation and ecology, working with protected and native species, exotics and rare breed animals. He has 18 years experience in bat survey and mitigation, has held a bat survey licence and roost visitors licence since 2006 and previously worked as an Advisor at Natural England providing consultation responses to planning applications.

Results

PEA - Results

The trees are located in an area of 'low' suitability potential flight-paths and foraging habitat. The agricultural building to the east lies c.7m from the sycamore tree; both trees lie c. 25m from the southern field boundary (with residential gardens beyond). The gardens to the south do represent a continuous belt of suitable foraging habitat and a more-or-less continuous linear habitat feature likely to be used by foraging / commuting bats. The trees themselves lie within an open agricultural field and therefore do not form an integral part of any intact linear feature and are remote from highly suitable foraging habitat.

Both trees do contain Potential Roost Features (PRFs).

GLTA - Results

The sycamore tree (*Acer pseudoplatanus*) is semi-mature and measures 72cm Diameter at Breast Height (DBH). Using the 'Mitchell's Rule' method of estimating tree age, and accounting for the fact that this tree is growing in an open situation (and therefore applying a sycamore growth rate of 2.5cm in circumference per year), it is estimated that this tree is c.28 years old. The tree is in a poor condition and is suffering from crown dieback. A number of branches on the eastern side have been pruned back in an ad hoc manner, presumably to prevent contact with the adjacent building. Many of the branches in the crown are dead and a number of these are rotten, but these are exclusively very small in diameter and are exposed and are clearly subject to water ingress. The tree is showing evidence of fungal infection and a rot hole exists at ground level on the northern side of the main bole. This accesses a small rot cavity within which was inspected in detail using a torch and video endoscope and was found to extend no more than 1m

above ground level. The rot hole in the trunk was obscured by nettles at the time of the inspection which obstructed potential bird or bat access. No evidence of bats having accesses this cavity was identified. Over all the Potential Roost Features identified in the sycamore tree are deemed to offer suboptimal potential for individual bats only (PRF-I).

The horse chestnut tree (*Aesculus hippocastanum*) is also semi-mature and measures 78cm Diameter at Breast Height (DBH). Using the 'Mitchell's Rule' method of estimating tree age, and accounting for the fact that this tree is growing in an open situation (and therefore applying a horse chestnut growth rate of 3cm in circumference per year), it is estimated that this tree is c.26 years old. This tree is currently in a reasonable condition but does appear to be suffering from bleeding canker (*Pseudomonas syringae* pv. *aesculi*) with a small number of lesions evident on the trunk. Whilst dead wood within the crown is limited to very small branches, a number of areas of flaking bark shields were identified on the main stem. These offer theoretical potential for individual roosting bats, but are very ephemeral in nature and clearly do not offer any potential for larger numbers of bats or maternity roosts. Over all the Potential Roost Features identified in the horse chestnut tree are deemed to offer suboptimal potential for individual bats only (PRF-I).

Conclusion

Based on the GLTA - considered alongside the PEA - it is concluded that both trees offer Potential Roost Features only suitable for individual bats or very small numbers of bats. This is due to the low number of low suitability PRFs identified during the GLTA and the 'low' suitability of the surrounding habitat identified during the PEA.

Recommendations

Both trees are considered to represent PRF-I and therefore the Roost Resource Approach of providing appropriate compensation for all PRF-Is in advance of impacts and a Precautionary Working Method Statement (PWMS).

The recommended measures to reduce the risk of harm to bats are as follows;

- During the tree felling operatives will avoid cutting through any cracks, cavities, limb/knot holes or any other potential roosting features.
- Once felled, timber must be retained on site for minimum 48 hours, with potential entrances not blocked i.e. facing away from ground, before they are removed or chipped.

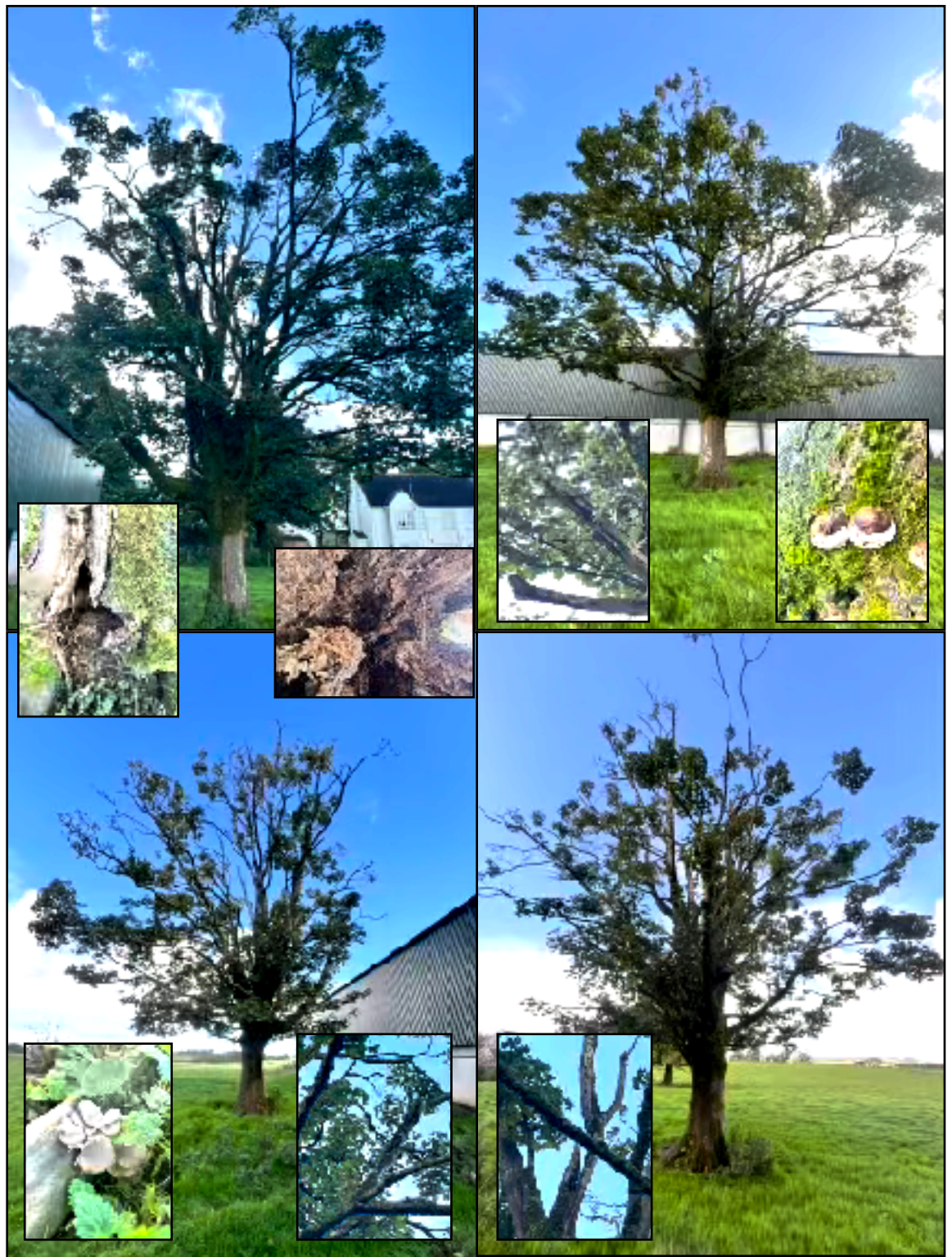


Figure 2: Showing sycamore tree with range of PRF-I.



Figure 3: Showing horse chestnut tree with range of PRF-I.

To compensate for the loss of 2no. PRF-I trees it is recommended that;

- A total of 3 no. timber bat boxes should be installed at a height of 4-5m above ground level on the main stem of retained mature trees on site, prior to works commencing. These boxes should be erected so as to face away from the prevailing wind and away from street lighting. Suitable boxes can be purchased 'off-the-shelf' (examples include - <https://www.nhbs.com/search?q=bat+boxes&qview=162121> and / or <https://www.nhbs.com/search?q=bat+boxes&qview=173589>) or can be constructed according to the specification provided by the Bat Conservation Trust (BCT), specifically;
 - Make sure joints are well sealed and avoid large, loose-fitting front panels.
 - All timber used in bat boxes should be rough sawn (un-planed) and untreated from sustainable sources
 - Keep entrance slits small (15 -20mm)
 - Removable lids should not be used and the box should not be opened

If bats or bat roosts - or any feature representing a higher level of bat roost potential (i.e. PRF-M) - are identified at any time prior to or during felling works, work must pause and the acting ecological consultant contacted immediately.