Ground Level Tree Assessment

Little Clifton Village Hall, Workington, CA14 1YF

Little Clifton Village Hall Commitee

Status	Issue	Name	Date
Final	1	Elen Griffin BSc (Hons), MRSB Consultant Ecologist	27/11/2023

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Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

> The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.
>
> The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.
>
> (BS 42020, 2013)

Executive Summary

Arbtech Consulting Limited was instructed by Little Clifton Village Hall Committee to undertake a Ground Level Tree Assessment (GLA) at Little Clifton Village Hall, Workington, CA14 1YF (hereafter referred to as "the site"). The survey was required to inform the continued removal and works to trees prior to the erection of solar panels on the hall roof (hereafter referred to as "the proposed development").

The following is work you will need to commission to comply with legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Table 5 of this report.

Feature	Survey Results Summary	Impact Assessment	Recommendations
Roosting bats (T1 – T6 and line of ash trees)	The trees on site are considered to have no value for roosting bats due to a lack of potential roost features. Any areas of damage or holes were upwards facing, waterlogged and shallow and therefore considered to be unsuitable for roosting bats.	Bats are very unlikely to be roosting within the trees on site and as such, there are not anticipated to be any impacts on roosting bats as a result of the felling of some trees and pollarding of others. T1 is to be pruned and re-shaped allowing for better growth, this will likely allow the tree to better mature and therefore be more likely to create ecological niches suitable for roosting bats. Similarly, T4 is to be pollarded at ~8ft, the majority of the sub-optimal features noted are below this height therefore they will be unimpacted by the works. Furthermore, new growth following the works may allow for the features to become better protected and thus more suitable for bats.	In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.
Foraging and commuting bats	The scattered trees on site could be used by local bat populations for foraging and commuting. These could also be used by bats dispersing from nearby roosts outside of the site. The site has low value for foraging and commuting bats. With higher value habitats present adjacent to the site.	The proposed development will result in the loss of a small line of immature ash trees, individual cherry and sycamore trees but given the presence of more extensive areas of foraging and commuting habitat in the locality, this is likely to be inconsequential for bats.	None.
Nesting birds	No evidence of nesting bird was noted during the site visit however the trees on site could provide foraging and nesting habitat for common bird species	The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the trees should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.

Contents

1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Little Clifton Village Hall Committee to undertake a Ground Level Tree Assessment (GLA) at Little Clifton Village Hall, Workington, CA14 1YF (hereafter referred to as "the site"). The survey was required to inform the continued removal and works to trees prior to the erection of solar panels on the hall roof (hereafter referred to as "the proposed development").

A plan showing the proposed development will be provided in Appendix 1 when available.

The aim of the GLA was to determine the presence or evaluate the likelihood of the presence of roosting bats within the trees, and to gain an understanding of how bats could use the site for roosting, foraging or commuting. This has been undertaken with due consideration to the "Bat Surveys for Professional Ecologists —Good Practice Guidelines" publication (Collins, 2023).

To the author's knowledge, no previous ecology reports have been produced for this site.

1.2 Site Location and Landscape Context

The site is located at National Grid Reference NY 05606 29143 and has an area of approximately 0.14ha comprising of the existing village hall, associated car park and grassland areas along with lines and scattered trees. It is surrounded by residential areas within the villages of Little Clifton and Bridgefoot with a large expansion of deciduous woodland running along the banks of the River Marron and Lostrigg Beck. Areas of ancient woodland are present within the wider landscape to the north of the site along with further small residential villages with Workington town centre present ~5.5km west of the site. A site location plan is provided in Appendix 2.

1.3 Scope of the Report

This report provides a description of all features suitable for roosting, foraging and commuting bats and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on possible constraints to the proposed development as a result of bats and summarises the requirements for any further surveys to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation. To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A Day-time Bat Walkover (DBW) survey, including a ground level assessment of trees, to determine the presence or the suitability of any features which bats could use for roosting and to assess the suitability of the site's bat foraging and commuting habitat.

- An outline of potential impacts on any confirmed or unidentified roosts has been provided, based on the proposed development.
- Recommendations for further surveys and mitigation have been made, along with advice on the requirements for a European Protected Species Licence (EPSL) application if appropriate.
- Opportunities for the enhancement of the site for roosting, foraging and commuting bats have been set out.

2.0 Methodology

2.1 Desk Study

The desk study included a 2km radius review of statutory designated sites with bat qualifying interests and granted EPSL records for bats held on magic.gov.uk database. An assessment of the surrounding landscape structure was also completed using aerial images from Google Earth and OS maps.

2.2 Field Survey

The survey was undertaken by Elen Griffin BSc (Hons), MRSB, Ecological Consultant Natural England Bat Licence Number: 2023-11211-CL17-BAT on the 27th November 2023.

The GLA focussed on 6 individual trees along with a small line of trees which will either be directly affected by the proposed development or are in close proximity as well as providing an overview of the wider site and the surrounding landscape for bat roosting, foraging and commuting habitat.

For any surveyed trees:

A DBW survey was undertake, comprising a visual inspection was undertaken from ground level using binoculars to identify any possible roost features and, where accessible, required and safe to do so, a close up inspection of the features was completed using an endoscope, torch and ladders.

2.3 Breeding Birds and Other Incidental Observations

The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for barn owls.

2.4 Suitability Assessment

Habitats were categorised in accordance with Tables 4.2 and 6.2 of the "Bat Surveys for Professional Ecologists —Good Practice Guidelines" publication (Collins, 2023), which are replicated in Tables 1 and 2 below.

Table 1: Guidelines for assessing the potential suitability of a tree for bats

Suitability	Description
None	Either no potential roost features in the tree or highly unlikely to be any
Further Assessment Required (FAR)	Further assessment required to establish if potential roost features are present in the tree
Potential Roost Feature (PRF)	A tree with at least one PRF. Where sufficient information is available, each PRF will be classified as: • PRF-I – PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.

	• PRF-M – PRF is suitable for multiple bats and may therefore be used by a maternity colony.

Table 2: Guidelines for assessing the potential suitability of a site for bats

Potential Suitability	Potential Flight-Paths and Foraging Habitats
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 bats as flight-paths such as a gappy hedgerow 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 flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bas for foraging such as trees, scrub, grassland or water.
High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths 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.

2.5 Limitations

It should be noted that whilst every effort has been made to describe the features on site in the context of their suitability for roosting bats, this does not provide a complete characterisation of the site. This survey provides a preliminary view of the likelihood of bats being present. This is based on suitability of the habitats on site and in the local area, the ecology and biology of bats as currently understood, and the known distribution of bats as recovered during the desk study. Bats are highly mobile creatures that switch roosts regularly and therefore the usage of a site by bats can change over a short period of time.

A search for historical bat records has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of the site for bats, it is not anticipated that the purchase of historical records data will add any significant weight or alter the conclusions and recommendations outlined in this report.

These limitations have been taken into account during the evaluation of the site and requirement for further surveys and mitigation.

3.0 Results and Evaluation

3.1 Designated Sites

No statutory designated sites with bat qualifying interests were identified within 2km of the site. However the river Marron, located ~57m east of the site, is designated as a part of River Derwent and Tributaries Special Area of Conservation(SAC) and Site of Special Scientific Interest (SSSI)

3.2 Historical Records

A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in close proximity to the licensed site. No EPSL records for bats have been returned within 2km of the site.

3.3 Field Survey Results

The weather conditions recorded at the time of the survey are shown in Table 3. The results of the field survey are detailed in Table 4 and illustrated in Appendix 3.

Table 3: Weather conditions during the survey

Date:	27/11/2023
Temperature	4°C
Humidity	93%
Cloud Cover	10%
Wind	6mph
Rain	None

Table 4: PRA Results

Feature	Description	Photographs
Bat foraging and commuting habitat	Expansions of deciduous woodland along with areas of ancient woodland will provide suitable foraging and commuting habitat for bats along with some roosting opportunities. The river Marron and Lostrigg Beck will provide ampul foraging opportunities for bats due to attracting large numbers of insects. **The local habitat surrounding the site is considered to be of high value for local bat populations.**	N/A

T1 – suitability assessment	T1 is a mature oak tree located at the western most end of the line of trees along the southern boundary (~ grid reference - NY 05585 29120). The approximate diameter of the tree at breast height is 110cm. No ivy or other ecological niches such as woodpecker holes, pruning wounds or holes were noted around the main stem or limbs of the tree. Broken immature limbs were noted just above head height. The limbs did not provide suitable roosting locations for bats due to their exposed resulting in high light levels and weathering. **The tree is considered to have negligible value for roosting bats.**	

T2 - suitability assessment	T2 is a semi mature sycamore tree with a duel stem within the line of trees along the southern boundary (~ grid reference NY 05588 29124) The approximate diameter of the tree at chest height is 85cm. No ivy or other ecological niches such as woodpecker holes, pruning wounds or holes were noted around the main stem or limbs of the tree. One old would was noted, likely as a result of the removal of a low branch. The wound was partially occluded with no roosting potential for bats. **The tree is considered to have negligible value for roosting bats.**	 

T3 - suitability assessment	T3 is a mature cherry tree located within the line of trees along the southern boundary (~ grid location NY 05593 29124) . The approximate diameter of the tree at chest height is 90cm. No ivy is present around the tree. A small upward facing partially occluded wound was noted ~1m from the ground. The wound was noted to be waterlogged and shallow thus making it unsuitable for roosting bats. **The tree is considered to have negligible value for roosting bats.**	

T4 - suitability assessment	T4 is a mature willow tree with the crown break ~30cm from the ground located within the line of trees along the souter boundary (~grid reference NY 05599 29126). The approximate diameter of the tree at chest height is 200cm (measuring numerous limbs at once) Some limited ivy is present near to the base of the tree extending only partially up some of the stems. The ivy is sparse with the bark of the tree visible below indicating that the ivy itself does not form a suitable roosting feature or indeed mask any roosting features present along the main stem of the tree. A number of 'stag heading' branches are present within the main canopy, the majority of which are dead and deluded of bark. Some lower level breaks were noted the breaks were upwards facing and assessed as being too exposed to light and weathering to provide suitable roosting features for bats. Similarly old pruning wounds were noted also upwards facing and waterlogged and therefore deemed unsuitable for bats. **The tree is considered to have sub-optimal value for roosting bats due to the nature of the features present.**	   

T5 - suitability assessment	T5 is an immature ash tree located at the end of the remaining lines of trees along the southern site boundary (~ grid reference NY 05604 29126). The approximate diameter of the tree at chest height is 45cm. Due to the immature nature of the tree no suitable roosting features were noted. **The tree is considered to have negligible value for roosting bats.**	

T6 - suitability assessment	T6 is a willow tree located along the northern boundary of the site (~ grid reference NY 05593 29157) The approximate diameter of the tree at chest height is ~150cm No ivy is present around the stem of the tree or any other ecological niches save an area of new damage to the outer back along the southern side of the tree. The damaged appears to be superficial and does not lead to a crevice or hole suitable for roosting bats. **The tree is considered to have negligible value for roosting bats.**	 
Line of ash trees	A line of immature ash trees is present along the western boundary of the site. **The trees are considered to have negligible value for roosting bats.**	

Line of removed leylandii trees	A line of leylandii trees located along the southern boundary of the site have already been removed from the site. Leylandii trees are generally considered to be unstable for roosting bats due to their dense nature and lack of free access to the main stem of the tree therefore their removal is unlikely to have impacted roosting bats.	
Breeding birds and other incidental observations	No evidence of nesting or breeding birds was noted in any of the trees surveyed during the site visit. Due to the habitats on site no other ecological constraints were noted.	N/A

4.0 Conclusions, Impacts and Recommendations

Taking the desk study and field survey results into account, Table 5 presents an evaluation of the value of the site for bats and also details any other ecological constraints identified such as nesting birds in relation to the proposed development.

Table 5: Evaluation of the site for bats and any other ecological constraints

Feature	Survey Results Summary	Impact Assessment	Recommendations	Biodiversity Enhancement Opportunities[1]
Roosting bats (T1 – T6 and line of ash trees)	The trees on site are considered to have no value for roosting bats due to a lack of potential roost features. Any areas of damage or holes were upwards facing, waterlogged and shallow and therefore considered to be unsuitable for roosting bats.	Bats are very unlikely to be roosting within the trees on site and as such, there are not anticipated to be any impacts on roosting bats as a result of the felling of some trees and pollarding of others. T1 is to be pruned and re-shaped allowing for better growth, this will likely allow the tree to better mature and therefore be more likely to create ecological niches suitable for roosting bats. Similarly, T4 is to be pollarded at ~8ft , the majority of the sub-optimal features noted are below this height therefore they will be unimpacted by the works. Furthermore, new growth following the works may allow for the features to become better protected and thus more suitable for bats.	In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.	The installation of one bat box at the site will provide additional roosting habitat for bats. The bat boxes will be installed on either gable end of the existing hall building. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light. The bat boxes will be a specification suitable for a mix of species such as general purpose bat box or Beaumaris bat box or a similar alternative brand.
Foraging and commuting bats	The scattered trees on site could be used by local bat populations for foraging and commuting. These could also be used by bats dispersing from nearby roosts outside of the site.	The proposed development will result in the loss of small line of immature ash trees, individual cherry and sycamore tree but given the presence of more extensive areas of foraging and commuting habitat in the locality, this is likely to be inconsequential for bats.	None.	None.

[1] The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021).

	The site has low value for foraging and commuting bats. With higher value habitats present adjacent to the site.			
Nesting birds	No evidence of nesting bird was noted during the site visit however the trees on site could provide foraging and nesting habitat for common bird species	The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the trees should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged. .	The installation of a minimum of two bird boxes on retained mature trees around the site boundaries or on retained buildings will provide additional nesting habitat for birds e.g. Schwegler No 17 Swift Nest Box (buildings) Schwegler 1SP Sparrow Terrace (buildings) Schwegler 1B Nest Boxes (trees) Schwegler 2H Robin Boxes (trees) Woodstone Nest Box (buildings or trees) Or a similar alternative brand. Tree boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole. Swift and sparrow boxes should be positioned at the eaves of a building and can be incorporated into the fabric of the building during construction.
Other ecological constraints	None identified.	N/A	N/A	N/A

5.0 Bibliography

- Collins, J. (2016). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London.
- Garland, L. & Markham, S. (2008) Is Important Bat Foraging and Commuting Habitat Legally Protected? http://biodiversitybydesign.co.uk/cmsAdmin/uploads/protection-for-bat-habitat-sep-2007.pdf
- Google Earth. Accessed on 27/11/2023
- Institution of Lighting Professionals (2023) and the Bat Conservation Trust. Guidance Note GN08/23 Bats and Artificial Lighting at Night. https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/
- Magic Database. http://www.magic.gov.uk/MagicMap.aspx Accessed on 27/11/2023
- Natural England Designated Sites View. https://designatedsites.naturalengland.org.uk/SiteSearch.aspx Accessed on 27/11/2023
- Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.
- Wray, S., Wells, D., Long, E., Mitchell-Jones, T (2010) Valuing Bats in Ecological Impact Assessment. IEEM In-Practice. Number 70 (December 2010). Pp. 23-25.

Appendix 1: Proposed Development Plan

Not available at the time of writing this report.

Appendix 2: Site Location Plan

Appendix 3: GLA Plan

Appendix 4: Legislation and Planning Policy Related to Bats

LEGAL PROTECTION

All species of bat are fully protected under ***The Conservation of Habitats and Species Regulations 2017*** (as amended) through their inclusion on Schedule 2.

Regulation 43: Protection of certain wild animals - offences

(1) A person is guilty of an offence if they:

(a) Deliberately captures, injures or kills any wild animal of a European protected species,

(b) Deliberately disturbs wild animals of any such species,

(c) Deliberately takes or destroys the eggs of such an animal, or

(d) Damages or destroys a breeding site or resting place of such an animal,

(2) For the purposes of paragraph (1) (b), disturbance of animals includes in particular any disturbance which is likely—

(a) To impair their ability:

(i) To survive, to breed or reproduce, or to rear or nurture their young; or

(ii) In the case of animals of a hibernating or migratory species, to hibernate or migrate; or

(b) To affect significantly the local distribution or abundance of the species to which they belong.

Bats are also protected under the ***Wildlife and Countryside Act 1981*** (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by Natural England will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored. The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

There are 17 species of bat breeding in England and Natural England issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

- The purpose of the work meets one of those listed in the Habitats Regulations (see below);
- That there is no satisfactory alternative;
- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

The Habitats Regulations permits licences to be issued for a specific set of purposes including:

1. include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
2. scientific and educational purposes;
3. ringing or marking; and,
4. conserving wild animals.

Development works fall under the first purpose and Natural England issues bat mitigation licences for developments.

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to ‘local populations’ of EPS and not individuals/site populations.