

BAT EMERGENCE SURVEY REPORT,
WOOD VALE LAWN TENNIS CLUB,
11-13 WOOD VALE,
MUSWELL HILL, N10 3DJ.

Furesfen



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CONTROL SHEET

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Job Title.	Bat emergence survey report, Wood Vale LTC, Muswell Hill N10 3DJ
Purpose	Planning application for floodlighting at Court 5
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INTRODUCTION

Background

- 1.1 Furesfen was asked by Wood Vale Tennis Club, 11-13 Wood Vale, Muswell Hill, N10 3DJ to undertake two bat emergence/transect surveys. The investigation was necessary in order to determine if any protected species, might be affected by Planning Application, to install floodlighting at tennis Court number 5.
- 1.2 This is a recommended course of action in the BCT/ILP guidance ref GN08/23 to ensure there will be no potential to negative impacts on any local bat population. The methods were in accordance with the Bat Conservation Trust 2023 Guidance Note 08/23 Bats and Artificial Lighting at Night (replaces Fox, H., 2018 Bat Conservation Trust and Institute of Lighting Professionals Lighting Guidance).

Proposals

- 1.3 The lighting scheme will be erected on 5.5m. columns (base lines and net line) down each side with 12, 320Watt fittings, with four sided deflectors. All fittings will be 2700 kelvin. The cut off for floodlighting would be 21.45. This largely mirrors the lighting arrangement and curfew already present at adjacent courts to the north of Court 5.

Designations

- 1.4 Houses with long gardens are a significant distance from the courts. There is an adjacent club within the context of Crouch End Open Space. To the west of the site lies an important ancient woodland site Queen's Wood, leading to Highgate Woods. These sites are linked to the south by a green corridor known as Parkland Walk. To the north lies Alexandra Palace with associated woodland and grassland habitats all with known bat interest.

Site Description

- 1.5 The immediate setting is that of a residential area with mature trees and woodland. A substantial greenspace, used for a variety of leisure activity.

Scope of this Report

- 1.6 This report outlines the methodology and findings of the emergence surveys undertaken during May and June 2025.

Aims of Assessment

1.7 The purpose of this assessment was to:

- (a) Determine any potential impacts to priority habitats and species on site;
- (b) Determine any potential impacts on bats, or their roosts posed by cumulative lighting; and,
- (c) Advise of any mitigation measures that may be required.

METHODOLOGY

Desk study

2.1 A desk study was carried out using data from the surveys carried out at nearby sites, trapping studies at Queen's Wood, authors data and MAGIC (Defra website).

Walkover inspection

2.2 A visual inspection was carried out around the tennis court to ascertain any potential roost features (PRF's) and areas of bat interest. This included trees onsite and in offsite gardens. The pavilion was not included as it was out of the range of the proposed lighting and the roof was newly and tightly asphalted.

2.3 Two dusk surveys were carried out, by two surveyors, using Elekon batloggers and EMT modules with an iPad. Two x Night Fox Whisper infra-red cameras were deployed at a nearby tree.

2.4 The first transect survey was to ascertain the general level of bat activity within the linear site, as well as a targeted emergence survey on a tree using infra - red cameras (opposite Court 6 not to be lit). Two transects were walked during the second survey.

2.5 The surveys were conducted during suitable temperature and weather conditions. The survey methods were in accordance with The Bat Conservation Trust's *Bat Surveys: Good Practice Guidelines – 4th Edition* (Collins, 2023), and *The Bat Worker's Manual* (Mitchell-Jones and McLeish, 2004).

Surveyor Information

2.6 The surveys were undertaken by A. Fure Class 2 Bat Licence (Natural England licence number 2015-10381-CLS-CLS) a Chartered Environmentalist and a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) assisted by Peter Howarth (Class 2 NE licence number 2015-17195-CLS-CLS).

Limitations

- 2.7 There is a limitation inherent in studying features that are outside the land ownership and it is not possible to know how far they are optimised for bat use. There were no limitations caused by weather or temperature.

RESULTS

Desk Study

Table 1: Status of bats recorded in the local catchment

Species	Frequency
Common Pipistrelle <i>Pipistrellus pipistrellus</i>	Common: flight records Queen's Wood
Soprano Pipistrelle <i>P. pygmaeus</i>	Common: Roost and flight records Queen's wood
Nathusius' pipistrelle bat <i>P. nath</i>	This species has been trapped and ringed at Queen's wood
Noctule Bat <i>Nyctalus noctula</i>	Common: flight records Q. wood.
Leisler's bat <i>N. leisleri</i>	2018 Queen's wood.
Daubenton's Bat <i>Myotis daubentoni</i>	Declining in some regions associated with waterbodies Queens wood
Natterer's bat <i>M. nattereri</i>	Queens wood
Serotine bat <i>Eptesicus serotinus</i>	Flight records
Brown Long – eared bat <i>Plecotus auritus</i>	Various incidences locally,

Adapted from Mitchell-Jones (2007)

- 3.1 Nine species of bat have been recorded in the local catchment. There were no European Protected Species Licences within 2km (not discernible on MAGIC).

Building and tree inspection

- 3.2 The well- maintained site is mallet - shaped: the pavilion and courts 1-4 forming the head; and courts 5-6 form the handle. Courts 3-4 are already lit with box luminaire units.
- 3.3 Note was taken of areas that might have potential for bat interest within proximity to the court. Observations were made of the boundary features. The 1930's Pavilion was recessed

from the courts and not within the zone that will be affected by the proposed new lighting. In any event, it did not present with PRF's.

Vegetation

- 3.4 To the east of the courts there was a 2m grass path (swathe-cut) with a treeline of predominantly native species on the offside of the fence. This was about half the length of the courts 4-6 before terminating as a group of Leyland cypress trees. Bramble grew in the interstices.
- 3.5 The species in the treeline/ vegetation included:
- Oak (2)
 - Norway maple
 - Hazel
 - Elder
 - Hornbeam (2) and
 - Ash (saplings).
- 3.6 Along the western boundary gardens, a large Ash presented with no voids and no potential for bats. An Oak tree presented with a singular, minor feature. Whilst voids were occluded one limb presented with loose bark.
- 3.7 It was not known how far this feature was suitable for bat use so it was included in an emergence survey during the first visit. It was not visible during the second visit due to the spread of the canopy. It was considered to be of negligible to low potential for bat use.



Potential roost features

Left: Offsite Oak over western boundary



Loose bark

First emergence survey 21.5.25

- 3.8 The survey began with Surveyor 1 (PH) undertaking an emergence survey on an offsite Oak tree at Court 6 (not to be lit). There was a small amount of loose bark on one of the limbs and this presented as the only feature around the courts that had bat roosting potential.
- 3.9 Surveyor 2 walked transects (north to south) along the long sides of the group of courts 4-6.
- 3.10 No bats were observed flying from a roost site. Three bat species were recorded during the evening survey: Common, and Soprano Pipistrelle bats and Noctule bat.
- 3.11 Bats arrived at the site (sunset + 24 minutes) and foraging began sunset + 40 minutes). This was largely along the southern tree line.



Second Emergence survey 18.6.24

- 3.12 During the second survey two transects were walked and these covered a slightly greater area than before.
- 3.13 The same three bat species were recorded in total during the evening:
- Common Pipistrelle bat,
 - Soprano Pipistrelle bat, and
 - A single Noctule bat.
- 3.14 Common Pipistrelle was the first bat to arrive at the southern boundary treeline at sunset + 10 minutes; Soprano Pipistrelle at sunset + 30 minutes with less activity than before. This was followed by predominately Common Pipistrelle activity: commuting and foraging.
- 3.15 There were occasional passes of low frequency bats within the range of Nathusius' pipistrelle, although insufficient examples to determine this species. Tawny Owls were heard calling in the mid-distance.

ASSESSMENT

Bat roosting, Commuting and Foraging Habitat

- 4.1 No potential roost features (PRF's) were found on site. There was an Oak tree in an offsite garden with loose bark on a limb. No other PRF's were noted. No bats were seen to exit this area during an emergence survey.
- 4.2 The site was deemed a negligible to low potential for roosting bats, which would normally require one emergence survey. Two surveys were performed due to the proximity of Queen's Wood, and in the case of encountering species with low light tolerance, although none were recorded.
- 4.3 Three bat species were recorded during the transects in the first survey in May. These tended to be brief commuting passes of bats across the site. During the second survey Common Pipistrelle bats remained on site for foraging purposes.

- 4.4 The proposed box luminaires are not thought to present a risk to any roosting bat species. Light spillage from Court 5 will not affect the southern boundary vegetation, which appears to be the most significant area for bat use (commuting and foraging). The lights will not be used beyond 21.45.

Existing columns and box luminaires with horizontal cut off (court 4)



Policy and Legislation

- 4.5 All bats are dependent on dark, linear landscape features for movement across sites. Vegetation, particularly treelines are used by bats for a variety of functions. They provide for example:
- roost sites: even small voids are used by bats on a transient basis in the summer;
 - commuting routes: to avoid open areas;
 - cover: especially during the early part of the evening and in urban centres where light levels are high; and
 - foraging areas: the trees are both an insect breeding habitat and offer a sheltered microclimate.
- 4.6 All species of bat found in Britain, and their roosts, receive protection under Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended) and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). These legislative tools make it an offence for any person to:
- Deliberately **capture, injure, or kill a bat**;
 - Intentionally or recklessly **destroy a breeding or resting place (roost) of a bat**; and,

- Intentionally or recklessly **obstruct access for bats to a roost** or to alter the structure of a roost otherwise significantly to render it unsuitable to support roosting bats. This may preclude fragmentation of corridors caused by light pollution or tree removal and a useful discussion of this is provided by Garland and Markham (2007).
 - If a bat roost is to be affected by development activities, a licence from Natural England will need to be obtained.
- 4.7 The National Planning Policy Framework (2021) seeks to achieve net biodiversity gain within new development. As such, consideration should be given to enhancing the ecological value of the survey site in association with any proposals.
- 4.8 Paragraph 185 of the NPPF (2021) states that planning policies and decisions should “limit the impact of light pollution from artificial light on ... dark landscapes and nature conservation.”
- 4.9 The Environment Act 2021 operates as the UK’s new framework of environmental protection, establishing laws relating to water quality, air quality, waste reduction, biodiversity and nature protection, and introducing a framework for setting legally binding targets for environmental improvement.
- 4.10 The Environment Act creates new statutory duties for local authorities around nature recovery, including mandating a net gain in biodiversity for most developments in England via the planning system; the Environment Act introduces the necessary amendments to the Town and Country Planning Act 1990 to activate BNG. BNG will become a statutory requirement from January 2024 onwards for most developments, with BNG for small sites becoming mandatory from April 2024.
- 4.11 Net Gain is not required in this instance as no habitat will be lost as the current surface replaced a shale/clay surface.

RECOMMENDATIONS

Mitigation

4.12 Mitigation measures to avoid direct impacts to birds and mammals (bats) and insects, are limited. Light pollution cannot be mitigated but restrictions can be placed on light spillage to reduce the environmental impact has included the recommendations:

- Curfews on the operation of the lights (21.45);
- Altering the positioning of columns, (optimised);
- Cantilevering the luminaires (where appropriate) and
- Using a warm colour temperature for the lights (2,700K employed).

REFERENCES

Bat Conservation Trust 2023 Guidance Note 08/23 Bats and Artificial Lighting at Night (replaces Fox, H., 2018 Bat Conservation Trust and Institute of Lighting Professionals Lighting Guidance)

HMSO (2000) Countryside and Rights of Way Act 2000. HMSO, London.

HMSO (2006) Natural Environment and Rural Communities Act 2006. HMSO, London.

HMSO (2010) Conservation of Habitats and Species Regulations 2010. HMSO,
<http://www.magic.defra.gov.uk>

Mitchell –Jones A.J. & McLeish A. P. (Ed's). (2004) 'Bat workers Manual' JNCC

Table 2.

Selected bat activity (21.5.25)

Conditions: Sunset: 21.00. Cloud Cover 6/8. Temperature 14 degrees C. Wind at Beaufort 0.

Time	Detectors used: Elekon Scanner Night Fox Whisper PH Elekon Bat logger AF,
20.40	start
21.24	Common Pipistrelle bat (both surveyors)
21.29	Noctule bat high overhead
21.31	C. Pip
21.39	First Soprano Pipistrelle bat
21.40-43	C. Pip foraging activity
21.50	Feeding passes of both Pipistrelle species to the south of court 5
22.04	Soprano Pipistrelle
22.14	Occasional pass
22.20	ends

Table 3.**Selected Bat activity (18.6.25)****Conditions:** Sunset: 21.21. Cloud Cover 0/8. Temperature 18 degrees C. Wind at Beaufort 1.

Time	Detectors used: PH Elekon scanner Elekon Bat logger AF, Boundary transects.
21.00	start
21.30-38	First common Pipistrelle bats along the southern boundary treeline, up to 3 bats
21.42	Possible Nathusius' pipistrelle bat
21.52	First Soprano Pipistrelle (PH)
	No bats at northern courts
22.02	CPip passes
22.04	PPYg
22.07	CPip mostly associated with southern boundary
22.10	CPip
22.30	Noctule bat brief pass
22.40	Finish